PIONEER®
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# Service Manual

ORDER NO.
**RRV1489**

## STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

# XR-P460F

● **Refer to the service manual RRV1429 for XR-P760F/DD.**

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | Power Requirement | The voltage can be converted by the following method. |
|---|---|---|---|
| | XR-P460F | | |
| DDXJ | ○ | AC110–127V/220–230V/240V | With the voltage selector |
| DDXJ/NC | ○ | AC110–127V/220–230V/240V | With the voltage selector |
| DLXJ/NC | ○ | AC110–120V/220–230V/240V | With the voltage selector |
| YPWXJ | ○ | AC240V | ——— |

- **Parts of the exploded views in the exterior section and packing are all mentioned in this manual.**
- **The electrical parts are mentioned by the contrast table in this manual.**

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# 1. EXPLODED VIEWS, PACKING AND PARTS LIST

*NOTES :*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

## 1.1 EXTERIOR

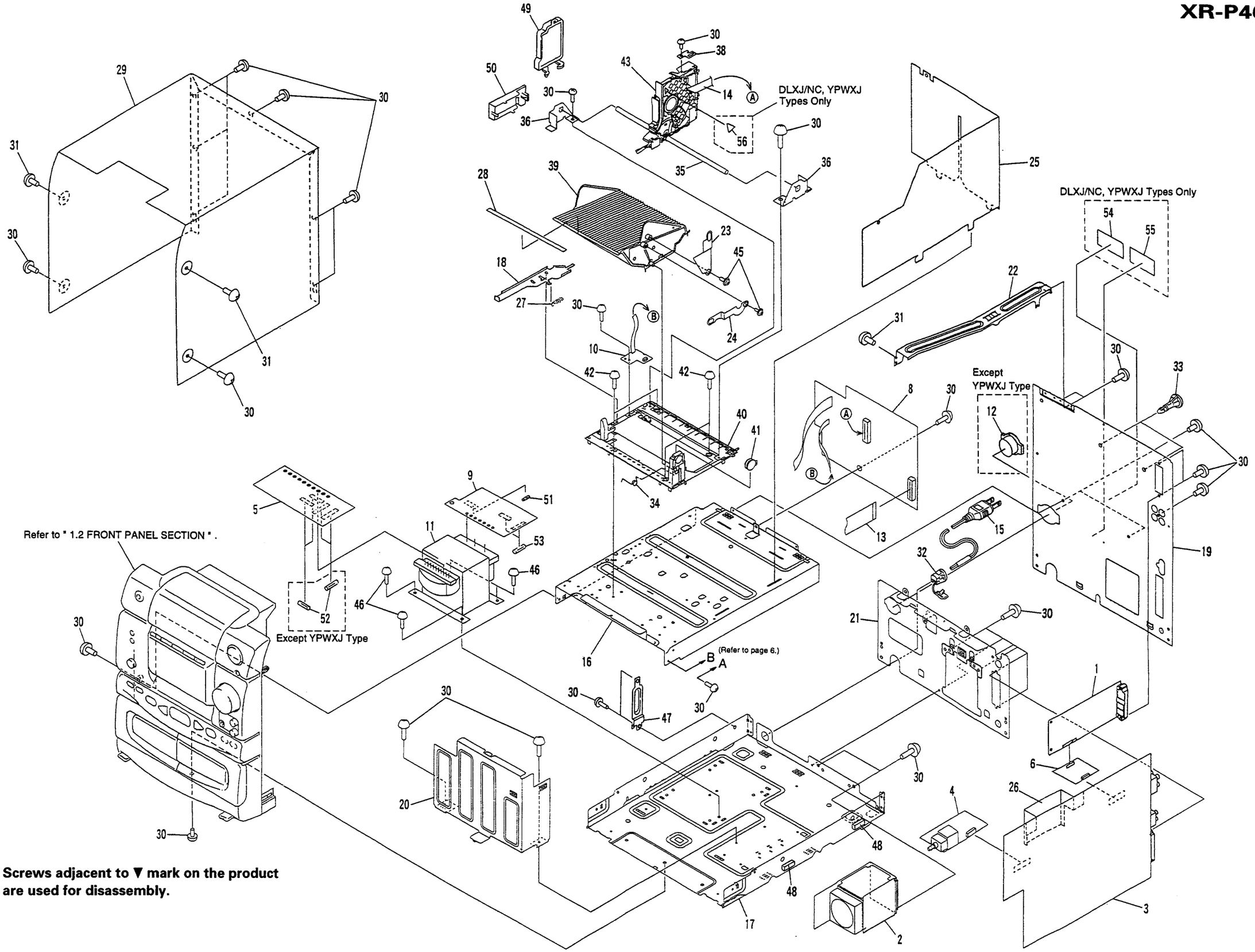
### ■ Contrast of XR-P460F/DDXJ, DDXJ/NC, DLXJ/NC and YPWXJ

XR-P460F/DDXJ, DDXJ/NC, DLXJ/NC and YPWXJ have the same construction except for the following:

| Mark | No. | Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | DDXJ type | DDXJ/NC type | DLXJ/NC type | YPWXJ type | |
| | 5 | SECONDARY Assy | AWZ7863 | AWZ7863 | AWZ7863 | AWZ7864 | |
| | 9 | PRIMARY Assy | AWZ7899 | AWZ7899 | AWZ7899 | AWZ7900 | |
| ⚠ | 12 | Voltage Selector | AKX7002 | AKX7002 | AKX7002 | Not used | |
| ⚠ | 15 | AC Power Cord | PDG1013 | PDG1013 | ADG1131 | ADG1123 | |
| | 19 | Rear Panel | ANC7293 | ANC7302 | ANC7294 | ANC7303 | |
| ⚠ | 52 | Fuse(T2A, FU5–FU8) | AEK1057 | AEK1057 | AEK1057 | Not used | |
| | 54 | Caution Label | Not used | Not used | PRW1018 | PRW1018 | |
| NSP | 55 | Caution Label(F) | Not used | Not used | VRW–328 | VRW–328 | |
| | 56 | Caution Label(G) | Not used | Not used | VRW–329 | VRW–329 | |

### ■ Parts List for XR-P460F/DDXJ

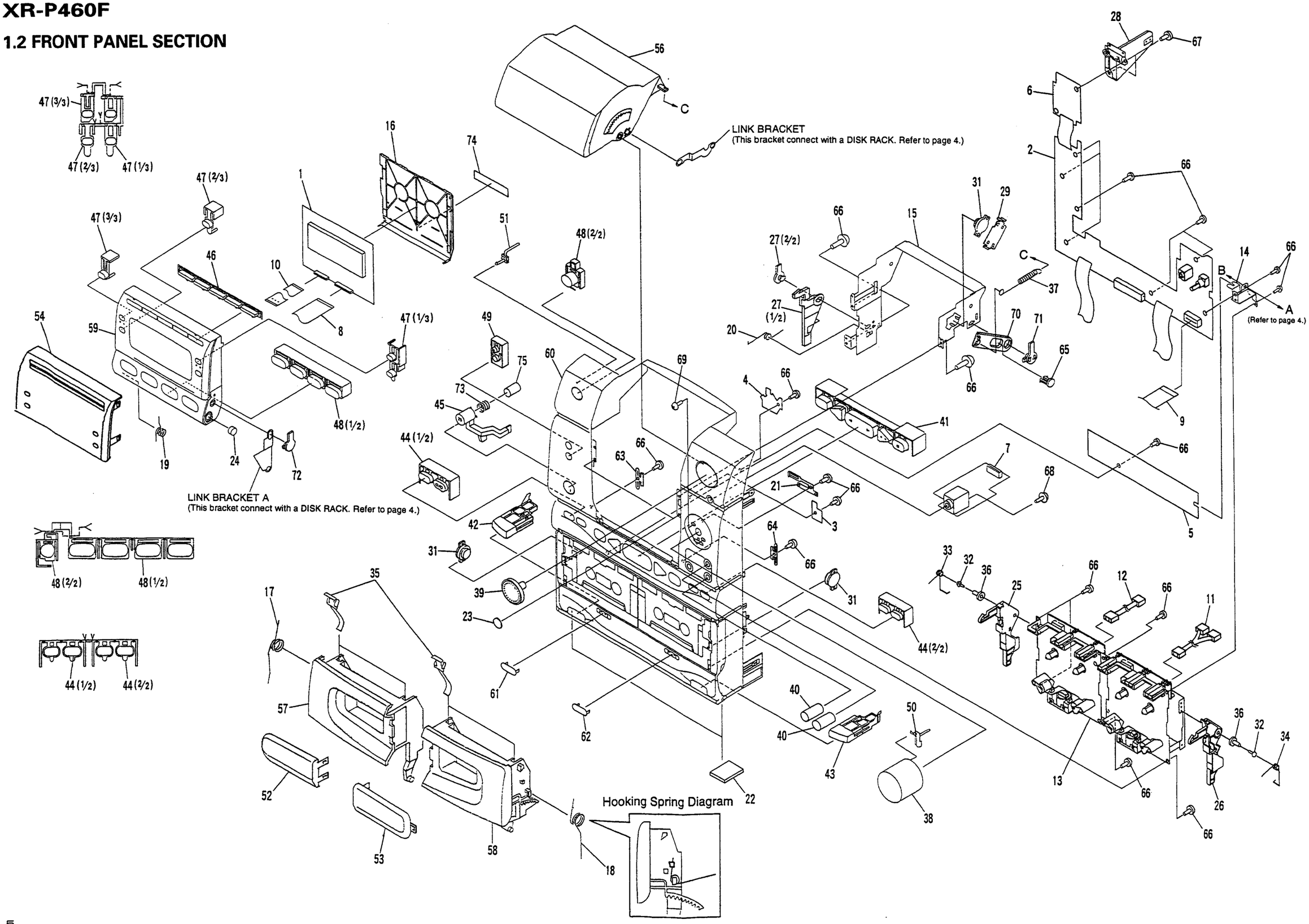
| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | FM/AM TUNER MODULE | AXQ3112 |
| | 2 | POWER AMP MODULE | AXQ7017 |
| | 3 | AF ASSY | AWZ7851 |
| | 4 | VOL ASSY | AWZ7855 |
| | 5 | SECONDARY ASSY | AWZ7863 |
| NSP | 6 | TX CONNECT ASSY | AWZ8176 |
| | 7 | ..... | |
| | 8 | CD ASSY | AWZ7895 |
| | 9 | PRIMARY ASSY | AWZ7899 |
| NSP | 10 | HOME SW ASSY | AWZ7917 |
| ⚠ | 11 | POWER TRANSFORMER (T) | ATS7089 |
| ⚠ | 12 | VOLTAGE SELECTOR | AKX7002 |
| | 13 | 19P F.F.C /30V | ADD7009 |
| | 14 | 22P F.F.C /30V | ADD7016 |
| ⚠ | 15 | AC POWER CORD | PDG1013 |
| | 16 | SUB CHASSIS | ANA7035 |
| NSP | 17 | CHASSIS | ANA7034 |
| | 18 | EJECT LEVER | ANB7022 |
| | 19 | REAR PANEL | ANC7293 |
| | 20 | FRONT STAY | AND7009 |
| | 21 | REAR STAY | AND7010 |
| | 22 | HOME LOCK STAY | AND7011 |
| | 23 | LINK BRACKET A | ANG7070 |
| | 24 | LINK BRACKET B | ANG7071 |
| | 25 | CD BACK COVER | AAK7248 |
| | 26 | PCB COVER | AAK7249 |
| | 27 | LEVER SPRING | ABH7053 |
| | 28 | DISC RACK PANEL | AAK7251 |
| | 29 | BONNET CASE | ANE7108 |
| | 30 | SCREW | BBZ30P080FZK |
| | 31 | SCREW | VPZ30P100FZK |
| | 32 | CORD STOPPER | CM–22B |
| NSP | 33 | LOCKING CARD SPACER | VEC1596 |
| | 34 | RACK SPRING | ABH7057 |
| | 35 | GUIDE SHAFT –25 | ALA7007 |
| | 36 | SHAFT HOLDER | ANB7021 |
| | 37 | ..... | |
| NSP | 38 | ASSIST ANGLE 2 | ANB7065 |
| | 39 | DISC RACK | ANW7069 |
| | 40 | RACK BASE S | ANW7070 |
| | 41 | DAMPER ASSY | AXA7018 |
| | 42 | SCREW C | PBA1106 |
| NSP | 43 | GM MECHA ASSY | AXA7026 |
| | 44 | ..... | |
| | 45 | SCREW | IBZ30P080FMC |
| | 46 | SCREW | BBZ40P080FZK |
| | 47 | SIDE ANGLE | ANG7091 |
| | 48 | SIDE ROLLER RUBBER | AEB7053 |
| | 49 | SERVO COVER | ANW7073 |
| | 50 | NICE COVER | ANW7074 |
| ⚠ | 51 | FUSE (5A, FU1) | REK–107 |
| ⚠ | 52 | FUSE (T2A, FU5–FU8) | AEK1057 |
| ⚠ | 53 | FUSE (2.5A, FU2, FU3) | REK–104 |


DLXJ/NC, YPWXJ Types Only
DLXJ/NC, YPWXJ Types Only
Except YPWXJ Type
Except YPWXJ Type
Refer to " 1.2 FRONT PANEL SECTION " .
(Refer to page 6.)

**NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.**

# XR-P460F

## 1.2 FRONT PANEL SECTION


LINK BRACKET
(This bracket connect with a DISK RACK. Refer to page 4.)
LINK BRACKET A
(This bracket connect with a DISK RACK. Refer to page 4.)
(Refer to page 4.)
Hooking Spring Diagram

Parts List

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | DISPLAY ASSY | AWZ7876 |
| | 2 | OPERATION-A ASSY | AWZ7920 |
| NSP | 3 | DOOR SW ASSY | AWZ7887 |
| | 4 | JOG ASSY | AWZ7888 |
| | 5 | DECK RELAY ASSY | AWZ7902 |
| NSP | 6 | OPERATION-B ASSY | AWZ7912 |
| NSP | 7 | HEADPHONE ASSY | AWZ7915 |
| | 8 | 31P F.F.C /60V | ADD7006 |
| | 9 | 17P F.F.C /30V | ADD7007 |
| | 10 | 27P F.F.C /30V | ADD7008 |
| | 11 | CONNECTOR ASSY 5P | RKP1582 |
| | 12 | CONNECTOR ASSY 3P | RKP1583 |
| | 13 | MECHANISM UNIT | RYM1248 |
| | 14 | EARTH BRACKET | ANG7072 |
| | 15 | SUB PANEL | ANG7074 |
| | 16 | BACK COVER | AAK7208 |
| | 17 | DOOR SPRING L | ABH7084 |
| | 18 | DOOR SPRING R | ABH7085 |
| | 19 | CD DOOR SPRING | ABH7086 |
| | 20 | EJ ARM SPRING | ABH7087 |
| | 21 | DOOR SWITCH SPRING | ABK7005 |
| | 22 | RUBBER SHEET | AEB1111 |
| | 23 | CUSHION RUBBER | AEB7038 |
| | 24 | DOOR SPACER | AEB7040 |
| | 25 | EJECT ARM (L) | AMR7074 |
| | 26 | EJECT ARM (R) | AMR7075 |
| | 27 | LOCK LEVER | AMR7068 |
| | 28 | PCB HOLDER | AMR7073 |
| | 29 | HOLD MOLD | AMR7094 |
| | 30 | ..... | |
| | 31 | DAMPER ASSY | AXA7021 |
| | 32 | SCREW | BSZ20P120FMC |
| | 33 | EJECT SPRING (L) | ABH7102 |
| | 34 | EJECT SPRING (R) | ABH7103 |
| | 35 | SPRING | RBK1004 |
| | 36 | COLLAR | RNK2135 |
| | 37 | HOOD SPRING | ABH7098 |
| | 38 | VOLUME KNOB | AAB7069 |
| | 39 | JOG KNOB | AAB7071 |
| | 40 | MIC VOLUME KNOB | AAB7070 |
| | 41 | CONTROL BUTTON A | AAD7237 |
| | 42 | EJECT BUTTON L | AAD7223 |
| | 43 | EJECT BUTTON R | AAD7224 |
| | 44 | CONTROL BUTTON B | AAD7238 |
| | 45 | OPEN BUTTON | AAD7231 |
| | 46 | GENRE BUTTON | AAD7239 |
| | 47 | TIMER BUTTON | AAD7240 |
| | 48 | FUNCTION BUTTON | AAD7232 |
| | 49 | P. BASS BUTTON | AAD7241 |
| | 50 | VOL. LENS | AAK7214 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 51 | STA. LENS | AAK7210 |
| | 52 | DOOR WINDOW L | AAK7211 |
| | 53 | DOOR WINDOW R | AAK7212 |
| | 54 | AMP PANEL | AAK7213 |
| | 55 | ..... | |
| | 56 | HOOD | AAN7134 |
| | 57 | CASSETTE DOOR PANEL L | AAN7128 |
| | 58 | CASSETTE DOOR PANEL R | AAN7129 |
| NSP | 59 | DOOR PANEL | AAN7096 |
| | 60 | FRONT PANEL | AMB7352 |
| | 61 | BLIND MOLD L | AMR7100 |
| | 62 | BLIND MOLD R | AMR7101 |
| | 63 | DOOR SHAFT HOLDER L | AMR7102 |
| | 64 | DOOR SHAFT HOLDER R | AMR7103 |
| | 65 | LOCK MOLD | AMR7097 |
| | 66 | SCREW | BPZ30P080FMC |
| | 67 | SCREW | VPZ30P100FZK |
| | 68 | SCREW WITH WASHER | ABA1005 |
| | 69 | SCREW | BBZ30P080FZK |
| | 70 | LINK MOLD | AMR7095 |
| | 71 | SHAFT MOLD | AMR7096 |
| | 72 | DOOR COVER | AMR7069 |
| | 73 | OPEN BUTTON SPRING | ABH7110 |
| | 74 | CAUTION LABEL | ARW7009 |
| | 75 | SPRING SPACER | AEB7048 |

## 1.3 PACKING

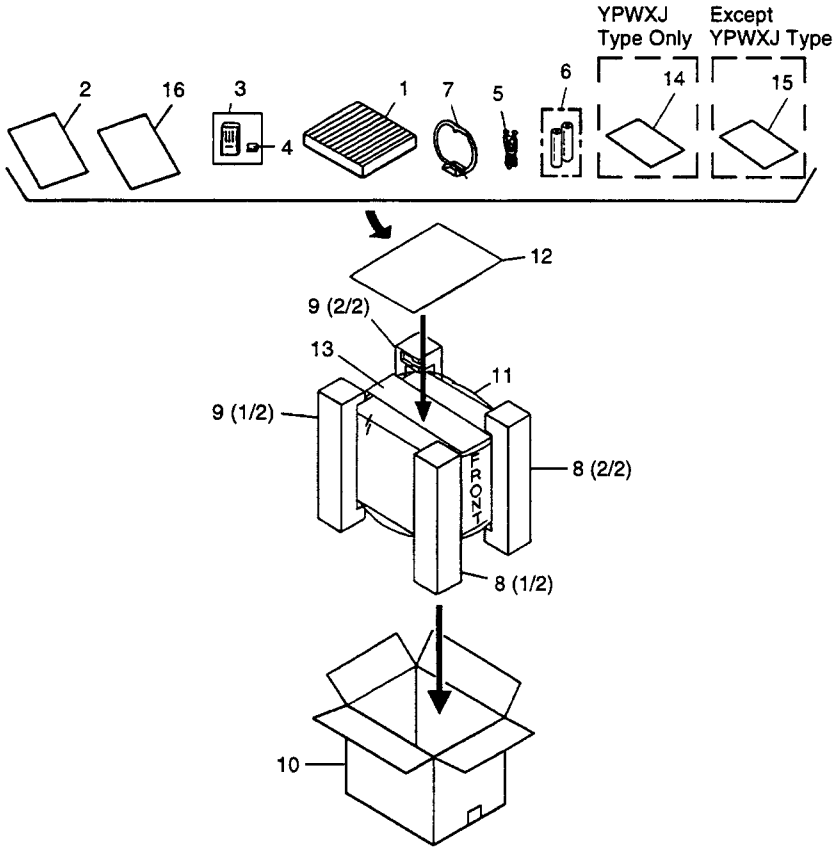
### ■ Contrast of XR-P460F/DDXJ, DDXJ/NC, DLXJ/NC and YPWXJ

XR-P460F/DDXJ, DDXJ/NC, DLXJ/NC and YPWXJ have the same construction except for the following:

| Mark | No. | Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | DDXJ type | DDXJ/NC type | DLXJ/NC type | YPWXJ type | |
| | 2 | Operating Instructions (English/Spanish/Chinese) | ARC7120 | ARC7120 | ARC7120 | Not used | |
| | 2 | Operating Instructions (English) | Not used | Not used | Not used | ARB7072 | |
| | 10 | Packing Case | AHD7299 | AHD7300 | AHD7300 | AHD7301 | |
| NSP | 14 | Warranty Card | Not used | Not used | Not used | PRY1003 | |
| NSP | 15 | Caution Label | ARR7008 | ARR7008 | ARR7002 | Not used | |

### ■ Parts List for XR-P460F/DDXJ

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | CD CASE RACK | AMR7072 |
| | 2 | OPERATING INSTRUCTIONS (English/Spanish/Chinese) | ARC7120 |
| | 3 | REMOTE CONTROL UNIT (CU-XR020) | AXD7068 |
| | 4 | BATTERY COVER | AZA7050 |
| | 5 | FM ANTENNA | ADH1016 |
| NSP | 6 | BATTERY (R03, AAA) | VEM-022 |
| | 7 | LOOP ANTENNA | ATB7004 |
| | 8 | FRONT PAD LR | AHA7096 |
| | 9 | REAR PAD LR | AHA7097 |
| | 10 | PACKING CASE | AHD7299 |
| | 11 | PACKING SHEET | AHG7003 |
| NSP | 12 | POLY. BAG | AHG7032 |
| | 13 | CAUTION CARTON | AHD7288 |
| | 14 | ..... | |
| NSP | 15 | CAUTION LABEL | ARR7008 |
| | 16 | CAUTION CARD | ARM7015 |



# 2. CONTRAST TABLE OF ELECTRICAL PARTS

*NOTES :*

- *Parts marked by "* NSP *" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "* ◉ *" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex. 1* *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

*560Ω → 56 x 10¹ = 561 ..... RD1/4PU 5 6 1 J*
*47kΩ → 47 x 10³ = 473 ..... RD1/4PU 4 7 3 J*
*0.5Ω → 0R5 ..... RN2H 0 R 5 K*
*1Ω → 1R0 ..... RS1P 1 R 0 K*

*Ex. 2* *When there are 3 effective digits (such as in high precision metal film resistors).*

*5.62kΩ → 562 x 10¹ = 5621 ..... RN1/4PC 5 6 2 1 F*

## ■ LIST OF WHOLE PCB ASSEMBLIES

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | XR-P760F/DD | XR-P460F/DDXJ, DDXJ/NC, DLXJ/NC | XR-P460F/ YPWXJ | |
| NSP | MAIN ASSY | AWK7208 | AWK7303 | AWK7216 | |
| | ├ AF ASSY | AWZ7846 | AWZ7851 | AWZ7851 | |
| | ├ VOL ASSY | AWZ7907 | AWZ7855 | AWZ7855 | |
| | ├ SECONDARY ASSY | AWZ7863 | AWZ7863 | AWZ7864 | |
| NSP | └ TX CONNECT ASSY | AWZ8176 | AWZ8176 | AWZ8176 | |
| NSP | COMPLEX ASSY | AWM7160 | AWM7223 | AWM7224 | |
| | ├ DISPLAY ASSY | AWZ7871 | AWZ7876 | AWZ7876 | |
| | ├ OPERATION-A ASSY | AWZ7881 | AWZ7920 | AWZ7920 | |
| NSP | ├ DOOR SW ASSY | AWZ7887 | AWZ7887 | AWZ7887 | |
| | ├ JOG ASSY | AWZ7888 | AWZ7888 | AWZ7888 | |
| | ├ CD ASSY | AWZ7889 | AWZ7895 | AWZ7895 | |
| | ├ DECK RELAY ASSY | AWZ7902 | AWZ7902 | AWZ7902 | |
| | ├ OPERATION-B ASSY | AWZ7911 | Not used | Not used | |
| NSP | ├ OPERATION-B ASSY | Not used | AWZ7912 | AWZ7912 | |
| NSP | ├ HEADPHONE ASSY | AWZ7915 | AWZ7915 | AWZ7915 | |
| NSP | ├ HOME SW ASSY | AWZ7917 | AWZ7917 | AWZ7917 | |
| | └ PRIMARY ASSY | AWZ7899 | AWZ7899 | AWZ7900 | |
| | FM/AM TUNER MODULE | AXQ1012 | AXQ3112 *1 | AXQ3112 *1 | |
| | POWER AMP MODULE | AXQ7017 | AXQ7017 | AXQ7017 | |
| | ├ FRONT 100W ASSY | AWZ7518 | AWZ8209 | AWZ8209 | *2 |
| | └ REGULATOR ASSY | AWZ7520 | AWZ8210 | AWZ8210 | *3 |
| NSP | GM MECHA ASSY | AXA7026 | AXA7026 | AXA7026 | |
| NSP | ├ LO MECHANISM BOARD ASSY | AWX7013 | AWX7013 | AWX7013 | |
| NSP | ├ MECHA PCB ASSY | AWZ7835 | AWZ7835 | AWZ7835 | |
| NSP | ├ SENSOR PCB ASSY | AWZ7836 | AWZ7836 | AWZ7836 | |
| NSP | ├ MOTOR PCB ASSY | AWZ7837 | AWZ7837 | AWZ7837 | |
| NSP | └ SW PCB ASSY | AWZ7838 | AWZ7838 | AWZ7838 | |
| NSP | └ SERVO MECHANISM ASSY GM | AXA7028 | AXA7028 | AXA7028 | |
| NSP | └MECHANISM BOARD ASSY | PWX1192 | PWX1192 | PWX1192 | |
| NSP | GM SLOT-IN MECHA ASSY | AXA7027 | Not used | Not used | *4 |
| NSP | └ SL MECHANISM BOARD ASSY | AWX7014 | Not used | Not used | |
| NSP | ├ SENSOR BOARD ASSY | AWZ7839 | Not used | Not used | |
| NSP | ├ LED BOARD ASSY | AWZ7840 | Not used | Not used | |
| NSP | └MOTOR BOARD ASSY | AWZ7841 | Not used | Not used | |

*Notes* **1: Refer to " ■ PCB PARTS LIST " and " 3.3 FM/AM TUNER MODULE".*
**2: Although AWZ7518 and AWZ8209 are different in part number, they consist of the same components.*
**3: Although AWZ7520 and AWZ8210 are different in part number, they consist of the same components.*
**4: XR-P460F has not "GM SLOT-IN MECHA ASSY".*

# XR-P460F

## AF ASSY

AWZ7851 and AWZ7846 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7846 | AWZ7851 | |
| ⚠ | IC1502, IC1503, IC2103, IC4101, IC4301 | XRA4558F-P | NJM4558M-D | |
| ⚠ | D1001 | D5SB20F | D5SBA20(B) | |
| | F4401, F4402 MPX Filter | RTF1209 | RTF1208 | |
| | C1503, C1504 | CEASR15M50 | CEAS010M50 | |
| | CN2104 Speaker Terminal 4P | AKE7018 | AKE7024 | |

## VOL ASSY

AWZ7855 and AWZ7907 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7907 | AWZ7855 | |
| | IC1501 | XRA4558F-P | NJM4558M-D | |
| | C1507, C1508 | CEASR15M50 | CEAS2R2M50 | |
| | C1521, C1522 | CEZA220M50 | CEAS010M50 | |
| | C1519, C1520 | CKSQYB333K50 | CKSQYB273K50 | |
| | C1558, C1559 | CKSQYB473K25 | CKSQYB563K25 | |
| | R1535, R1536 | RS1/10S391J | Not used | |
| | VR1501 Variable Resistor | ACX7015 | ACX7023 | |

## SECONDARY ASSY

AWZ7864 and AWZ7863 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7863 | AWZ7864 | |
| ⚠ | IC1001 - IC1008 | Not used | ICP-N50 | *5 |

*Note *5: Refer to AWZ7864 of XR-P760F in the service manual RRV1429.*

## OPERATION-A ASSY

AWZ7920 and AWZ7881 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7881 | AWZ7920 | |
| | IC1702 | BU4094BCF | Not used | |
| | IC1703 | XRA4558F-P | NJM4558M-D | |
| | Q1732, Q1733, Q1735 | DTC143EK | Not used | |
| | D1732, D1735, D1736 | SLR-342MCT31 | Not used | |
| | D1734, D1739 | SLR-342DCT31 | Not used | |
| | S1708, S1716, S1717 | ASG1051 | Not used | |
| | S1719, S1720 | Not used | ASG1051 | Refer to "SCH-1F" |
| | R1783 | RS1/10S000J | Not used | |
| | R1737 | RD1/6PM181J | Not used | |
| | R1732, R1734, R1736 | RD1/6PM271J | Not used | |
| | R1731, R1733, R1735 | RD1/8S271J | Not used | |

## DISPLAY ASSY

AWZ7876 and AWZ7871 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7871 | AWZ7876 | |
| | D1983 | 1SS254 | Not used | |

## OPERATION-B ASSY

AWZ7912 and AWZ7911 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7911 | AWZ7912 | |
| | Q1731 | DTC143EK | Not used | |
| | D1731 | SLR-342MCT31 | Not used | |
| | D1733 | SLR-342DCT31 | Not used | |
| | D1738 | GL1PR21 | Not used | |
| | D1742 | Not used | SLR-342VCT31 | Refer to "SCH-1F" |
| | S1709 | ASG1051 | Not used | |
| | S1718 | Not used | ASG1051 | Refer to "SCH-1F" |
| | R1773 | RS1/10S000J | Not used | |

## CD ASSY

AWZ7895 and AWZ7889 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7889 | AWZ7895 | |
| | IC8203 | LA6517 | Not used | |
| | IC8401 | XRA4558F-P | NJM4558M-D | |
| | D8001, D8002 | 1SS254 | Not used | |
| | C8045, C8261 | CKSQYF103Z50 | Not used | |
| | R8031 | RS1/10S000J | Not used | |
| | R8262 – R8266 | RS1/10S104J | Not used | |
| | R8261 | RS1/10S204J | Not used | |
| | R8045 | RS1/10S222J | RS1/10S000J | |
| | R8267 | RS1/10S470J | Not used | |
| | R8036 – R8038 | Not used | RS1/10S473J | Refer to "SCH-2F" |

## PRIMARY ASSY

AWZ7900 and AWZ7899 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7899 | AWZ7900 | |
| ⚠ | C1101(0.01 μ F/AC250V) | ACG7005 | Not used | |
| ⚠ | C1101(0.01 μ F/AC400V) | Not used | ACG1054 | |

# XR-P460F

## ■ PCB PARTS LIST

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| **FM/AM TUNER MODULE (AXQ3112)** | | | |
| SEMICONDUCTORS | | | |
| | IC6201 | | LA1836M |
| | IC6202 | | LM7001J |
| | Q6102 | | 2SC2223 |
| | Q6203 | | 2SC2235 |
| | Q6202 | | 2SC2712 |
| | Q6103, Q6214 | | 2SC2714 |
| | Q6201 | | 2SK208 |
| | Q6104 | | 2SK302 |
| | Q6101 | | 3SK194 |
| | Q6204 | | XDA124EK |
| | Q6217 | | XDC124EK |
| | D6101, D6102 | | 1T33 |
| COILS AND FILTERS | | | |
| | L6104 | | ATC1003 |
| | L6101 | | ATC1020 |
| | L6102 | | ATC1021 |
| | T6101 | | ATE-063 |
| | L6207 (10.7MHz) | | ATE1013 |
| | F6203, F6204 | | ATF-119 |
| | F6101 | | ATF-155 |
| | F6202 (450kHz) | | ATF1155 |
| | L6103 (2.2 µH) | | ATH1043 |
| | L6202, L6203, L6208 | | LCTA2R2J3225 |
| CAPACITORS | | | |
| | C6202, C6234, C6236 (1 µF/16V) | | ACG1051 |
| | C6107 | | CCSCH010C50 |
| | C6229 | | CCSCH821J50 |
| | C6110 | | CCSQCH020C50 |
| | C6101 | | CCSQCH050C50 |
| | C6108, C6203, C6268 | | CCSQCH101J50 |
| | C6111, C6116, C6208, C6221, C6222 | | CCSQCH150J50 |
| | C6115 | | CCSQCH330J50 |
| | C6114 | | CCSQRH080D50 |
| | C6113 | | CCSQRH180J50 |
| | C6105 | | CCSQTH150J50 |
| | C6261 | | CEAS010M50 |
| | C6224, C6246, C6262 | | CEAS100M50 |
| | C6227 | | CEAS101M10 |
| | C6216, C6217 | | CEAS330M16 |
| | C6231, C6233 | | CEAS3R3M50 |
| | C6219 | | CEAS470M10 |
| | C6243-C6245 | | CEAS470M16 |
| | C6238 | | CEJA100M16 |
| | C6249, C6250 | | CEJA4R7M35 |
| | C6215 | | CFTXA103J50 |
| | C6214 | | CFTXA224J50 |
| | C6103, C6106, C6112, C6204 | | CKSQYB102K50 |
| | C6102, C6109, C6117, C6210, C6264 | | CKSQYB103K50 |
| | C6213 | | CKSQYB223K50 |
| | C6230 | | CKSQYB333K50 |
| | C6228, C6252 | | CKSQYB472K50 |
| | C6209, C6237, C6265, C6267 | | CKSQYB473K50 |
| | C6212, C6218 | | CKSQYF103Z50 |
| | C6220, C6226, C6239, C6242, C6255 | | CKSQYF223Z50 |
| | C6235 | | CKSQYF224Z25 |
| | C6225, C6241, C6266 | | CKSQYF473Z50 |
| | C6232 | | CKSYB333K50 |
| | C6251 | | CKSYB472K50 |
| | C6223 | | CKSYF103Z50 |
| | C6263 | | CKSYF473Z50 |
| RESISTORS | | | |
| | VR6201 (10kΩ) | | ACP1056 |
| | VR6202 | | VRTB6VS223 |
| | R6299, R6300 | | RD1/4PU102J |
| | R6113, R6116, R6118, R6268-R6271 | | RS1/8S000J |
| | R6275, R6276, R6278, R6283, R6284 | | RS1/8S000J |
| | R6290, R6293, R6294, R6297 | | RS1/8S000J |
| | R6243, R6244 | | RS1/8S101J |
| | R6211 | | RS1/8S103J |
| | R6237 | | RS1/8S182J |
| | R6209 | | RS1/8S221J |
| | R6239 | | RS1/8S332J |
| | R6101 | | RS1/8S470J |
| | Other Resistors | | RS1/10S□□□J |
| OTHERS | | | |
| | BN6201 | TERMINAL 4-P | AKA1016 |
| | X6203 (7.200MHz) | | ASS1042 |
| | X6201 (456kHz) | | ASS1066 |
| | X6202 (450kHz) | | ATF1027 |
| | | AM RF TUNING BLOCK | AXX1025 |
| | CN6201 | 14P SOCKET | KP200IA14L |

# 3. SCHEMATIC AND PCB DIAGRAMS

## NOTE FOR SCHEMATIC DIAGRAMS (TYPE 1A)

**1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**

**2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**

**3. RESISTORS:**
Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.

**4. CAPACITORS:**
Unit: p:pF or µF unless otherwise noted.
Ratings: capacitor (µF) / voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

**5. COILS:**
Unit: m:mH or µH unless otherwise noted.

**6. VOLTAGE AND CURRENT:**
V : Signal voltage at rated output.
or ← V :
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.
⇦ mA or ← mA :
DC current at no input signal unless otherwise noted.

**7. OTHERS:**
- ⊘ or ● : Adjusting point.
- ◄ : Measurement point.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

**8. SCH-□ ON THE SCHEMATIC DIAGRAM:**
- SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

**9. SWITCHES** (Underline indicates switch position):

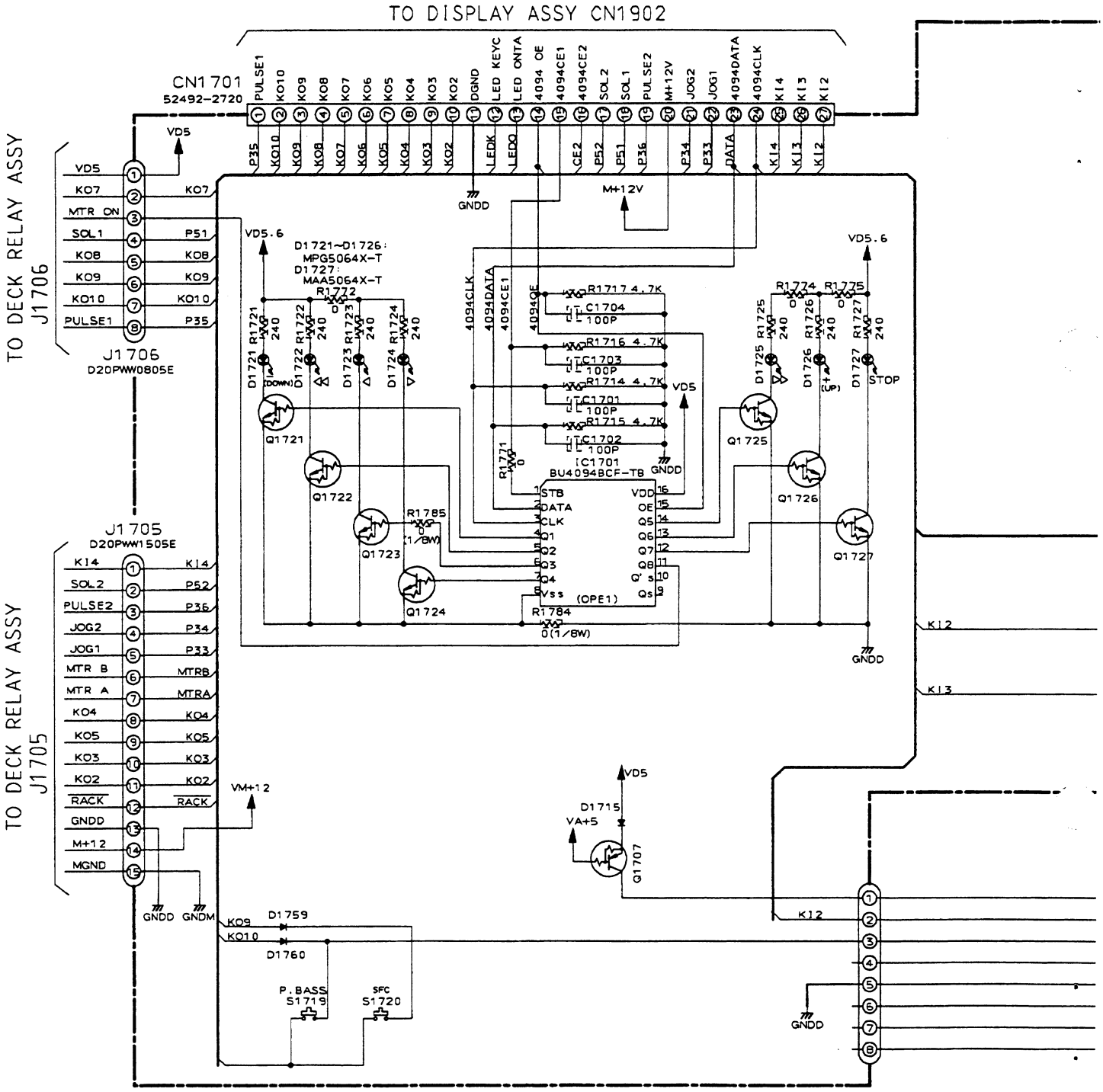
DISPLAY ASSY
S1901 : STATION MEMORY
S1902 : TITLE INPUT
S1903 : 21–25
S1904 : 16–20
S1905 : 11–15
S1907 : 1–5
S1908 : TIMER REC / WAKU–UP
S1909 : DISPLAY / CLOCK ADJ
S1910 : TAPE I/ II
S1911 : CD
S1912 : MD / CD II
S1913 : FM /AM

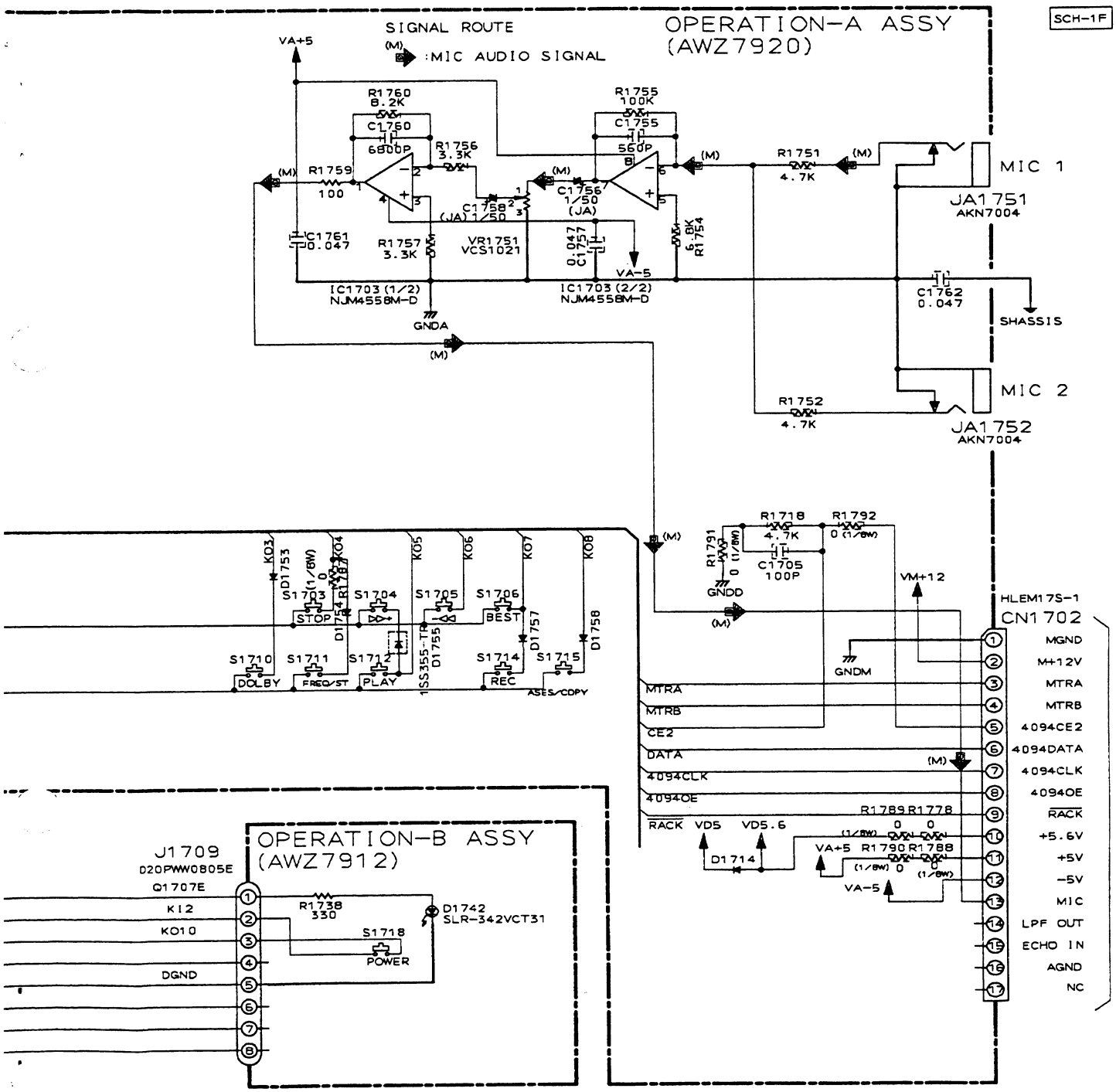
OPERATION–A ASSY
S1703 : STOP
S1704 : ►► +
S1705 : – ◄◄
S1706 : BEST
S1710 : DOLBY NR ON / OFF
S1711 : FREQ / STATION
S1712 : ◄ START ►
S1714 : REC STOP
S1715 : ASES / COPY
S1719 : P. BASS (DEMO)
S1720 : SFC / KARAOKE

OPERATION–B ASSY
S1718 : POWER STANDBY / ON

# XR-P460F

## 3.1 OPERATION-A ASSY AND OPERATION-B ASSY



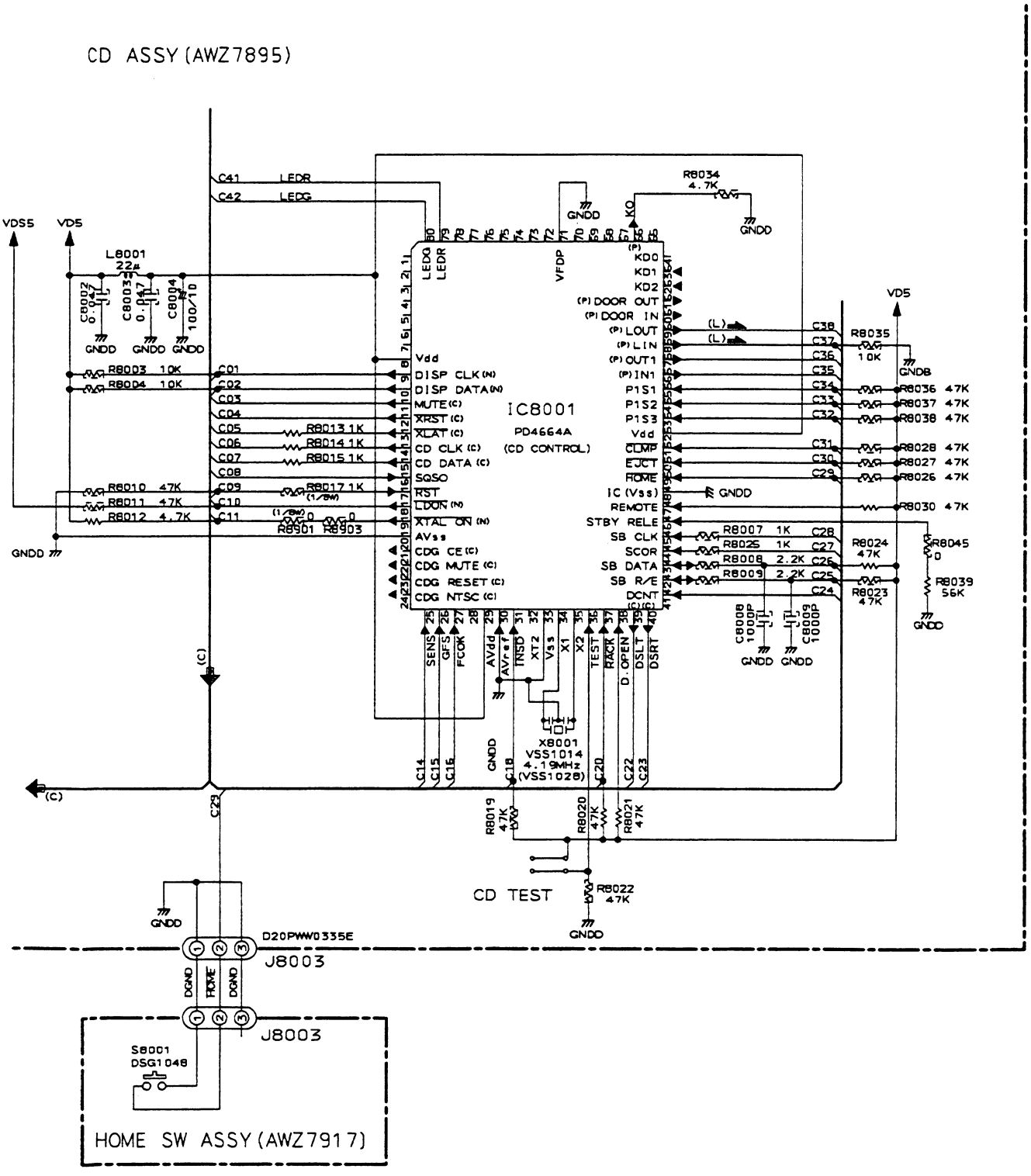

SCH-1F
SIGNAL ROUTE
(M) :MIC AUDIO SIGNAL
OPERATION-A ASSY
(AWZ7920)
VA+5
R1760 8.2K
C1760 6800P
R1756 3.3K
R1759 100
R1755 100K
C1755 560P
C1756 1/50 (JA)
C1758 (JA) 1/50
R1751 4.7K
MIC 1
JA1751 AKN7004
C1761 0.047
R1757 3.3K
VR1751 VCS1021
0.047 C1757
6.8K R1754
VA-5
IC1703 (1/2) NJM4558M-D
IC1703 (2/2) NJM4558M-D
C1762 0.047
SHASSIS
GNDA
R1752 4.7K
MIC 2
JA1752 AKN7004
R1718 4.7K
R1792 0 (1/8W)
R1791 0 (1/8W)
C1705 100P
GNDD
VM+12
HLEM17S-1
CN1702
MGND
M+12V
MTRA
MTRB
4094CE2
4094DATA
4094CLK
4094OE
RACK
+5.6V
+5V
-5V
MIC
LPF OUT
ECHO IN
AGND
NC
TO AF ASSY(2/2) CN2
GNDM
KO3
KO4
KO5
KO6
KO7
KO8
SD1753
S1703 STOP
S1704
S1705
S1706 BEST
S1710 DOLBY
S1711 FREQ/ST
S1712 PLAY
S1714 REC
S1715 ASES/CDPY
D1754
D1755 1SS355-TR
D1757
D1758
MTRA
MTRB
CE2
DATA
4094CLK
4094OE
RACK VD5 VD5.6
R1789 0
R1778 0
VA+5 R1790 0
R1788 0
D1714
VA-5
OPERATION-B ASSY
(AWZ7912)
J1709
D20PWW0805E
Q1707E
KI2
KO10
DGND
R1738 330
D1742 SLR-342VCT31
S1718 POWER

# XR-P460F

## 3.2 CD ASSY

*Note: For CD assy, only the differences between AWZ7895 and AWZ7889 are shown.*

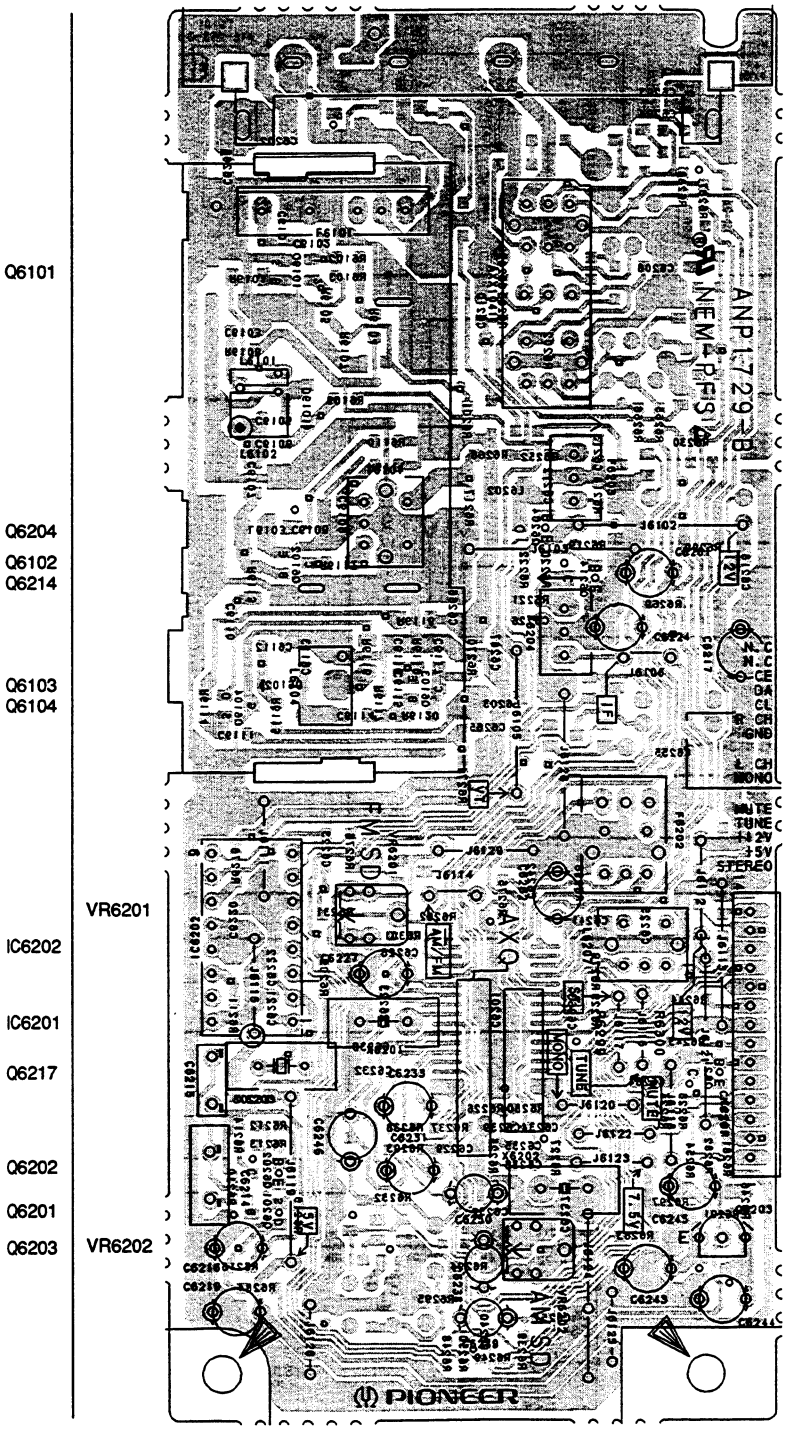
SCH-2F



## 3.3 FM/AM TUNER MODULE

PCB-1F

FM/AM TUNER MODULE



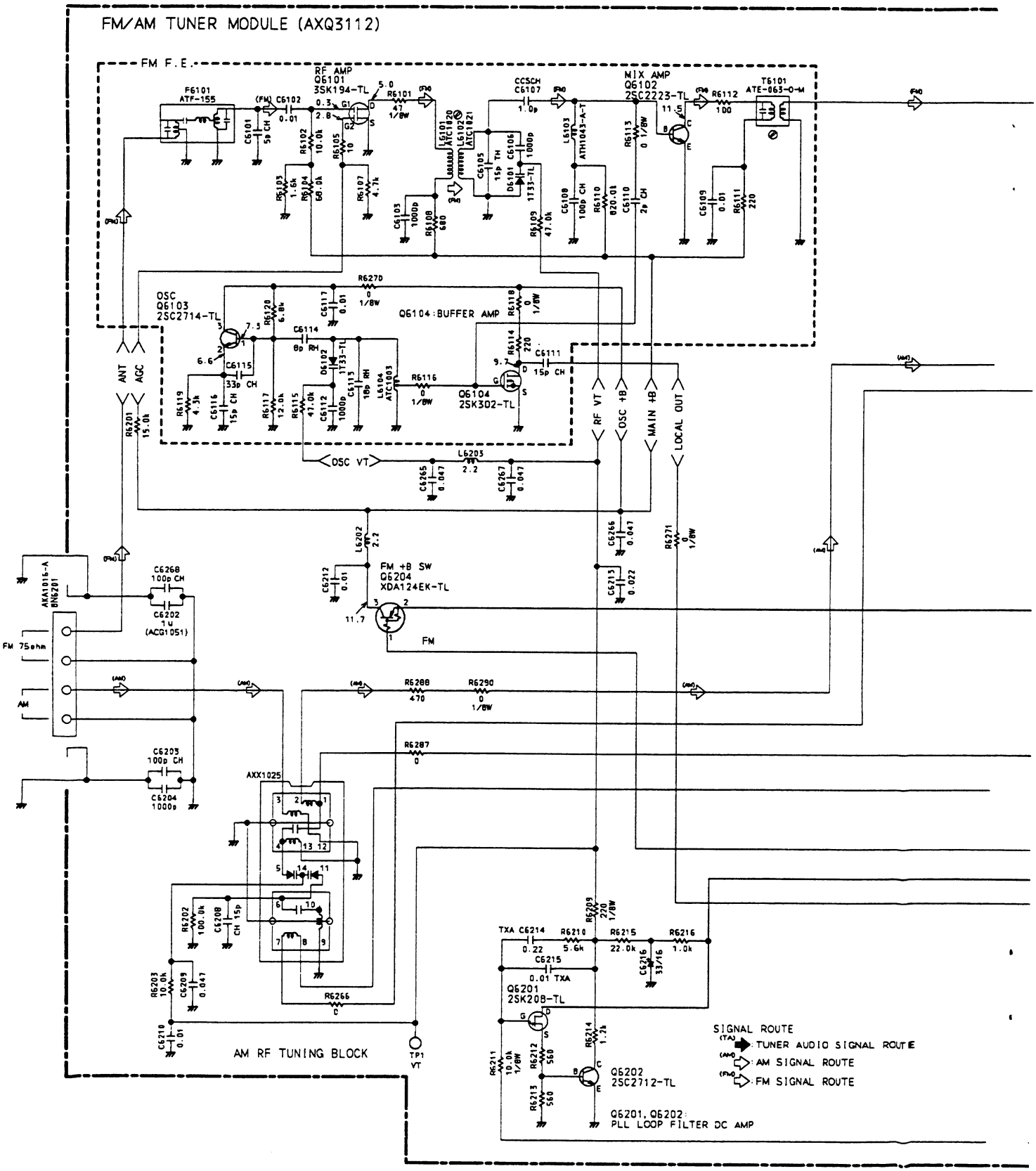

NOTE FOR PCB DIAGRAMS:

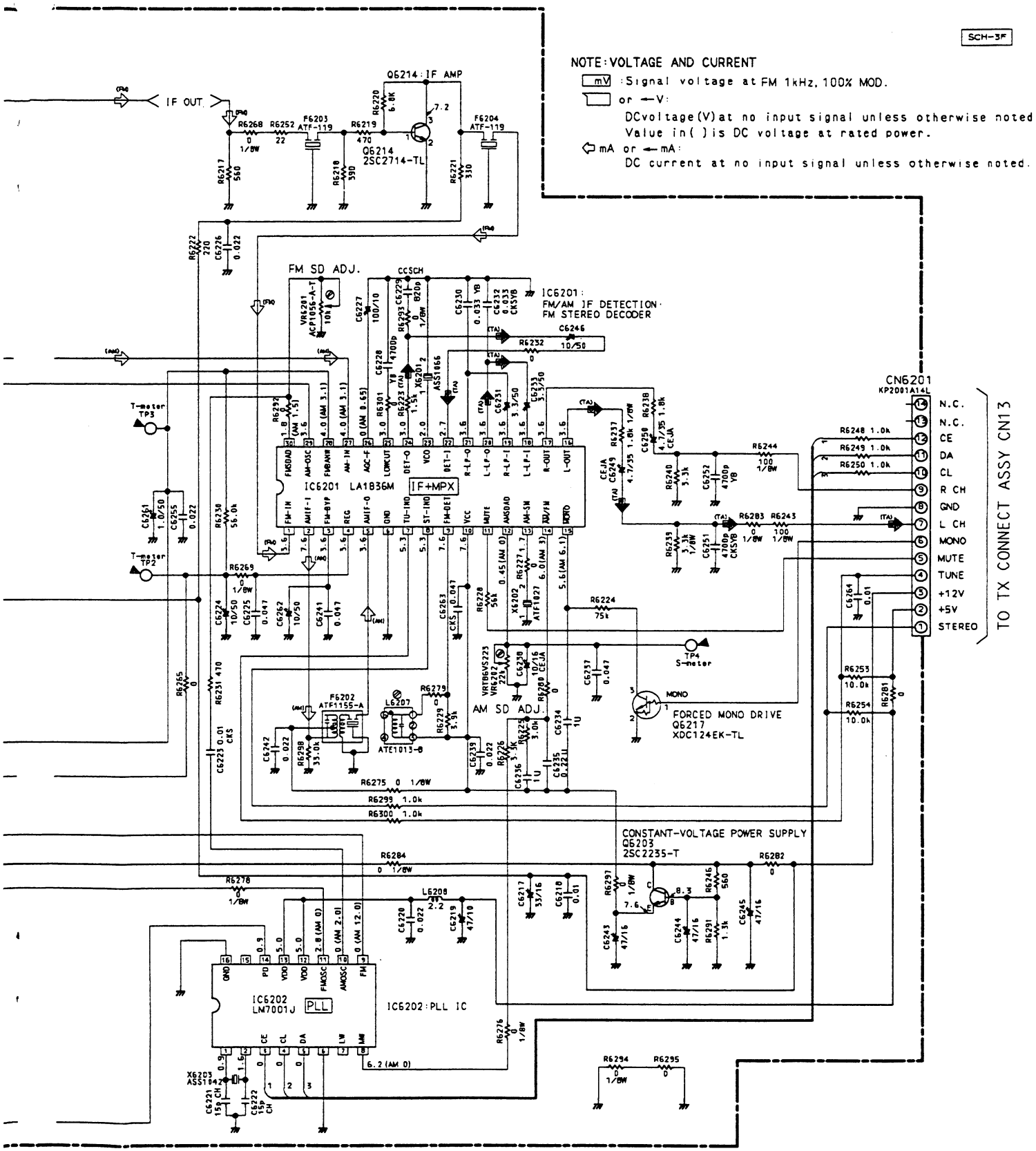
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|---|---|---|
| Q504 E Q504 | Q504 Q504 | Transistor |
| D203 D203 | D203 | Diode |
| C513 C513 | C513 | Capacitor (Polarized) |

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

● This diagram is viewed from the mounted parts side.


FM/AM TUNER MODULE (AXQ3112)
FM F.E.
RF AMP
Q6101
3SK194-TL
MIX AMP
Q6102
2SC2223-TL
F6101
ATF-155
T6101
ATE-063-0-M
OSC
Q6103
2SC2714-TL
Q6104 : BUFFER AMP
Q6104
2SK302-TL
ANT
AGC
OSC VT
RF VT
OSC +B
MAIN +B
LOCAL OUT
FM +B SW
Q6204
XDA124EK-TL
FM
FM 75ohm
AM
AXX1025
AM RF TUNING BLOCK
TP1
VT
TXA
Q6201
2SK208-TL
Q6202
2SC2712-TL
Q6201, Q6202:
PLL LOOP FILTER DC AMP
SIGNAL ROUTE
TUNER AUDIO SIGNAL ROUTE
AM SIGNAL ROUTE
FM SIGNAL ROUTE


SCH-3F
NOTE: VOLTAGE AND CURRENT
mV : Signal voltage at FM 1kHz, 100% MOD.
or ←V:
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.
⇦ mA or ←mA:
DC current at no input signal unless otherwise noted.
Q6214 : IF AMP
Q6214 2SC2714-TL
IF OUT
F6203 ATF-119
F6204 ATF-119
FM SD ADJ.
IC6201 : FM/AM IF DETECTION · FM STEREO DECODER
IC6201 LA1836M IF+MPX
AM SD ADJ.
F6202 ATF1155-A
ATE1013-B
FORCED MONO DRIVE
Q6217 XDC124EK-TL
CONSTANT-VOLTAGE POWER SUPPLY
Q6203 2SC2235-T
IC6202 LM7001J PLL
IC6202 : PLL IC
CN6201 KP2001A14L
N.C.
N.C.
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
TO TX CONNECT ASSY CN13
T-meter TP3
T-meter TP2
TP4 S-meter

# Service Manual

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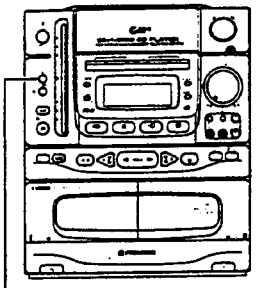

(DEMO)

PION-04890

**SERVICE GUIDE**

**ORDER NO.**
**RRV1430**

## STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

# XR-P760F

## CONTENTS


1. DISASSEMBLY ..... 2
2. HOW TO DIAGONISE CIRCUIT WHEN PRIMARY FUSE BLOWS ..... 9
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4. BLOCK DIAGRAM ..... 26



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T-DFK NOV. 1995 Printed in Japan

# 1. DISASSEMBLY (各部のはずしかた)

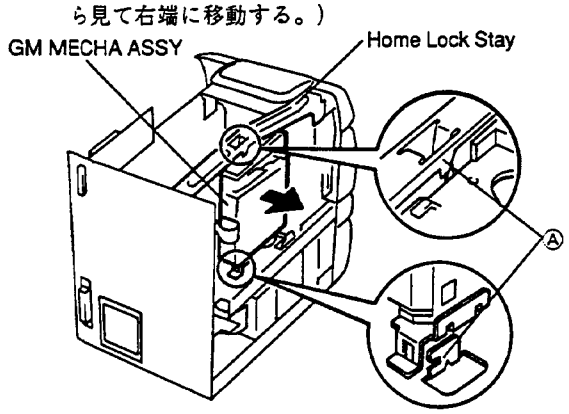
## ■ REMOVING THE GM MECHA ASSY (GMメカASSYのはずしかた)

*NOTE: Before removing the GM Mecha Assy, make sure you turn the power OFF and disconnect the AC power cord.*

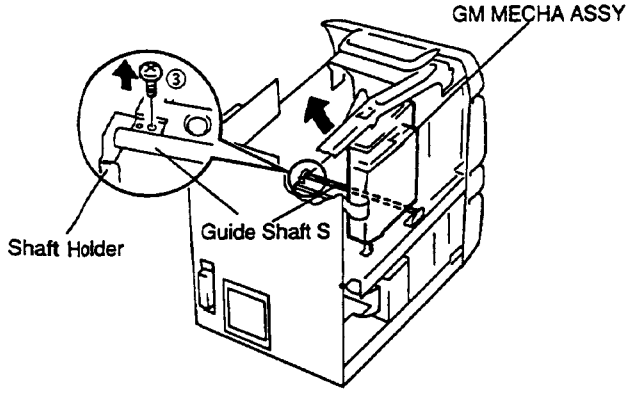
(注意: はずす前に必ず電源を切ってから電源コードを抜いてください。)

① Remove the bonnet. (Since the front of the home lock stay makes contact, hold the bonnet in that place and pull and lift at the same time.)
(ボンネットをはずす。ホームロックステイのフロント側があたるので、その箇所のボンネットを持ち上げながら引く。)

② Move the GM Mecha ASSY to the right (viewed from the rear), watching out for the 2 Lock locations (part Ⓐ).
(GMメカASSYをロック2ケ所(Ⓐ部)を解除して、リア側から見て右端に移動する。)



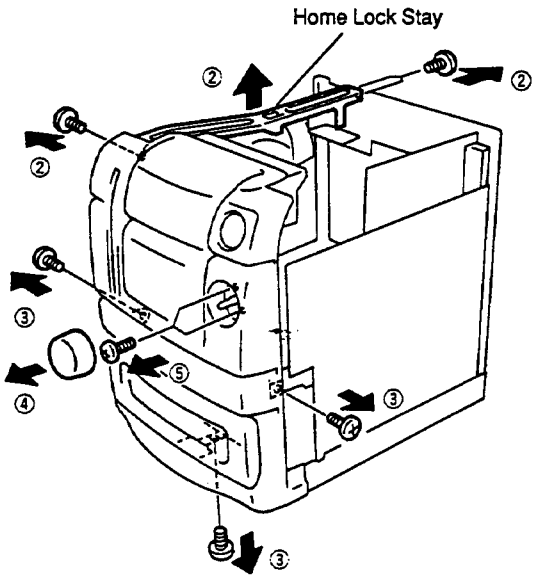

③ Remove the shaft holder that fixes guide shaft S in place (screw ③), and remove the GM Mecha ASSY together with guide shaft S.
(ガイドシャフトSを固定しているシャフトフォルダーをはずし(ネジ③) ガイドシャフトSごとGMメカASSYをはずす。)




## ■ REMOVING THE FRONT PANEL (フロントパネルのはずしかた)

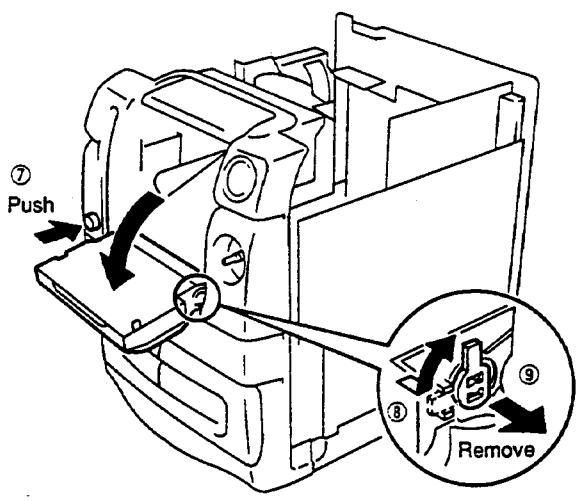
① Remove the bonnet.
(ボンネットをはずす。)

②–⑤




⑥ Remove the HEADPHONE ASSY wire rod.
(HEADPHONE ASSYの線材をはずす。)

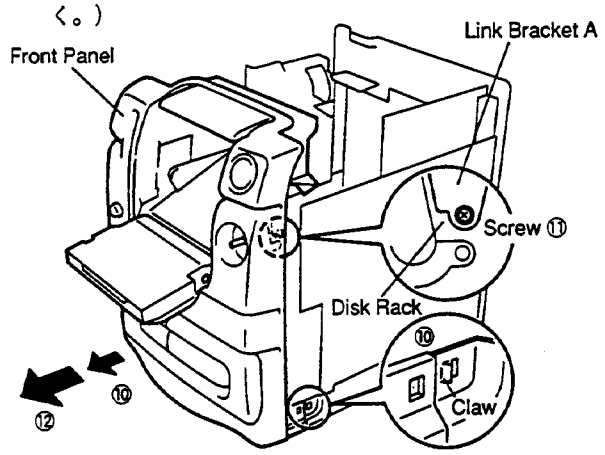
⑦–⑨



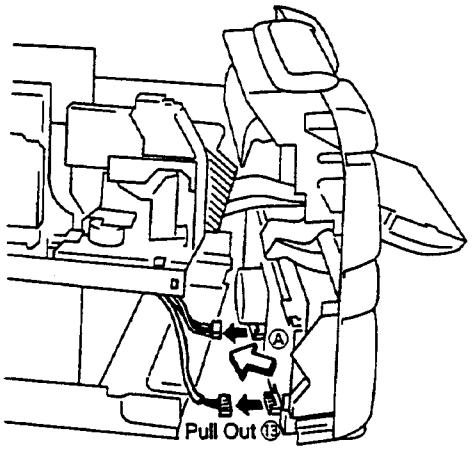
⑩ Shift the front panel slightly toward you, being cautious of the left and right catches on the chassis and sub chassis.
(フロントパネルをシャーシとサブシャーシの左右のツメに注意しながら手前に少しずらす。)

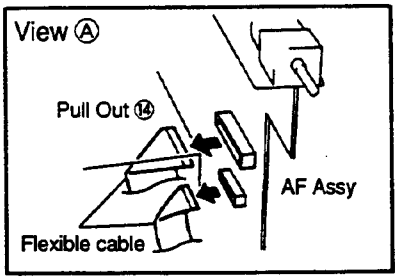
⑪ Remove screw ⑪ and remove link bracket A from the disc rack.
(ネジ⑪をはずしてディスクラックからリンクカナグAをはずす。)

⑫ Pull the front panel further toward you, and remove it from the chassis.
(フロントパネルをさらに手前に引き、シャーシから抜く。)




## ⑬, ⑭

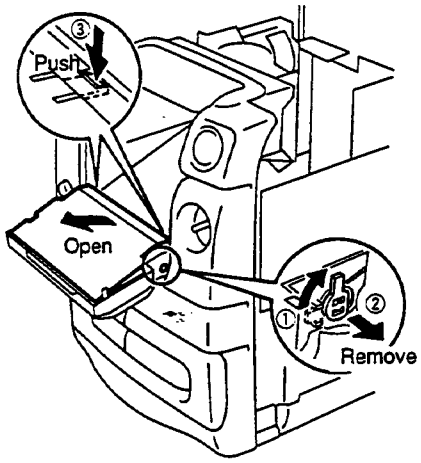



## ■ MICRO COMPUTER IC REPLACEMENT METHOD (マイコンICの交換方法)

## ①, ②, ③

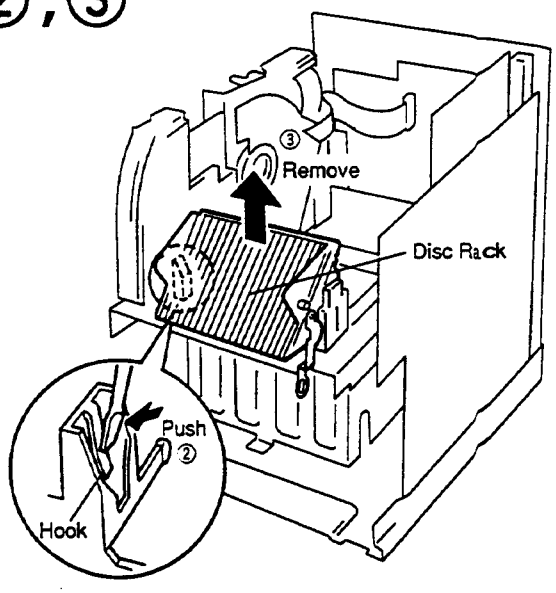
The micro computer IC can be easily replaced when the front panel has been removed.




## ■ REMOVING THE DISC RACK (ディスクラックのはずしかた)

① Remove the front panel.
(フロントパネルをはずす。)

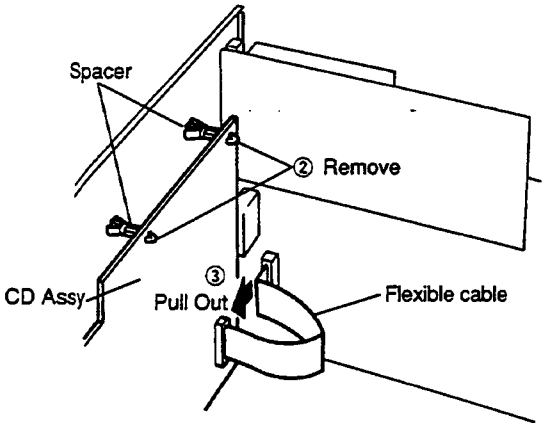
## ②, ③



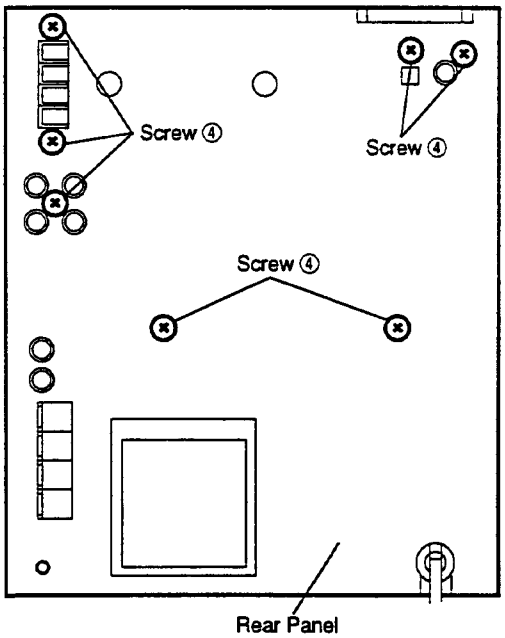
## ■ REMOVING THE POWER AMP MODULE (パワーアンプモジュールのはずしかた)

① Remove the bonnet and home lock stay.
(Refer to "■ Removing the Front Panel")
(ボンネットとホームロックステイをはずす。)
("フロントパネルのはずしかた"参照)

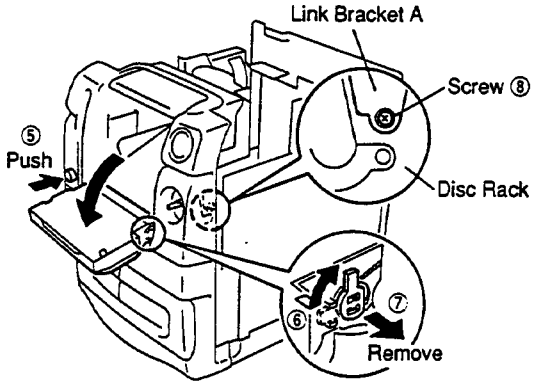
②, ③
Remove the spacer from the CD ASSY.
(CD ASSYからロッキングカードスペーサをはずす。)



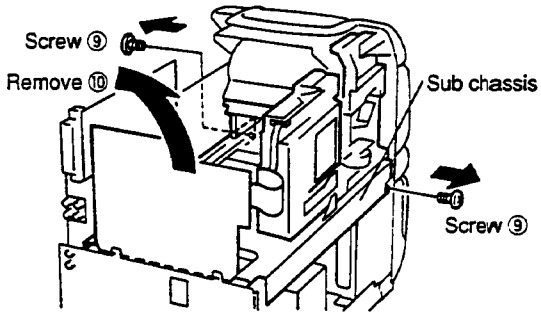

④ Remove the rear panel (screw ④ x 7).
(リアパネルをはずす。(ネジ④ 7本))



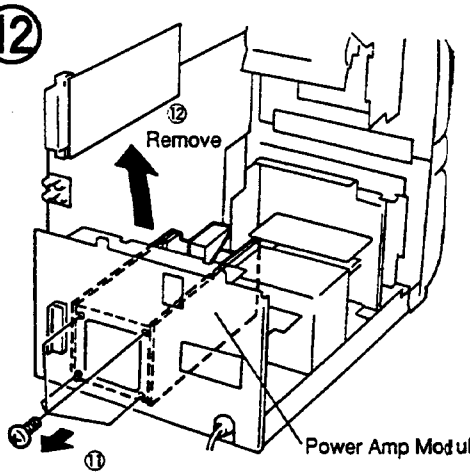

⑤–⑧
Remove screw ⑧ and remove link bracket A from the disc rack.
(ネジ⑧をはずしてディスクラックからリンクカナグAをはずす。)




⑨, ⑩
Remove screw ⑨ and remove the sub chassis together with the GM Slot-In Mecha ASSY and the GM Mecha ASSY.
(ネジ⑨をはずしてGMスロットインメカ、GMメカごとサブシャーシをはずす。)

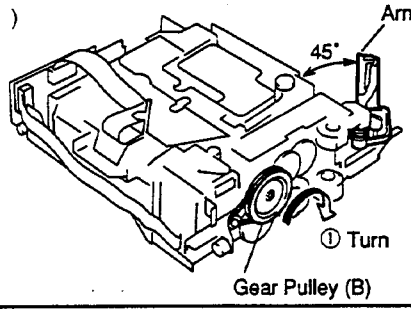



⑪, ⑫

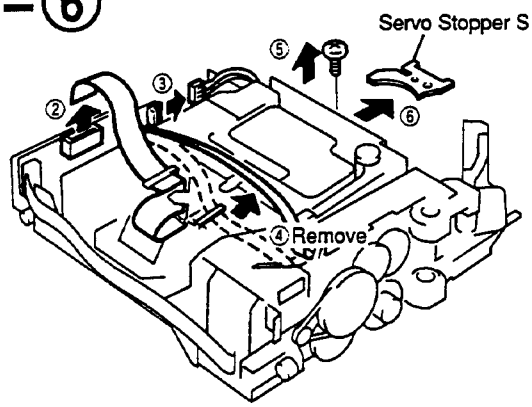


## ■ REMOVING THE SERVO MECHANISM ASSY GM
## (サーボメカASSY GMのはずしかた。)

① Turn gear pulley (B) and position Arm (A) as shown below.
(ギアプーリーBを回して、アームAを下図の位置にする。)

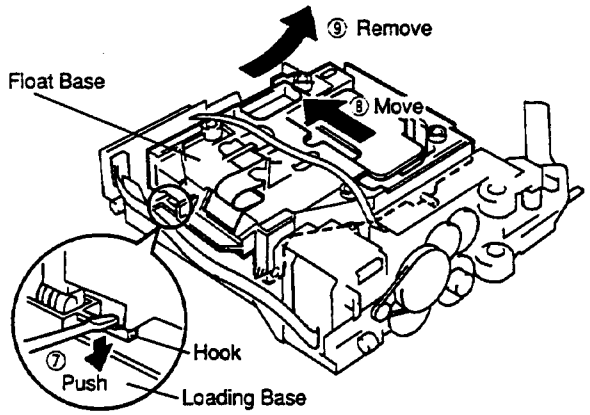



②-⑥



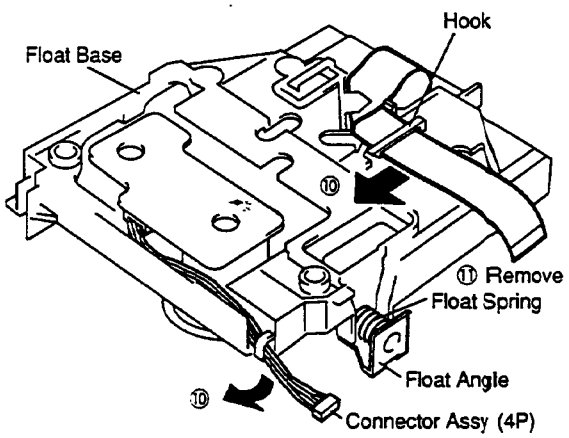

⑦-⑨

Slide the float base in the direction of the arrow ⑧ while pressing down on the loading base hook, and, lifting it gently, pull it out in the direction of the arrow ⑨.
(ローディングベースのフックを下に押しながらフロートベースを矢印⑧方向にスライドさせ、かるく持ち上げながら矢印⑨方向に引き抜く。)

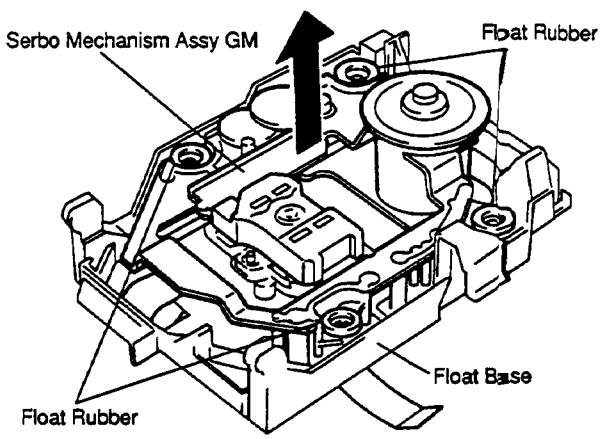



⑩ Remove the Pickup ASSY flexible cable and the connector ASSY (4P) from the float base.
(ピックアップASSYのフレキシブルケーブルとコネクタASSY(4P)をフロートベースのフックからはずす。)

⑪ Remove the float spring. (To install this part, line up the float angle side of the Servo Mechanism ASSY GM first, and press down on the float base side.)
(フロートスプリングをはずす。)(取り付ける時は、サーボメカASSY GMのフロートアングル側を先に合わせフロートベース側を下に押し込むとよい)



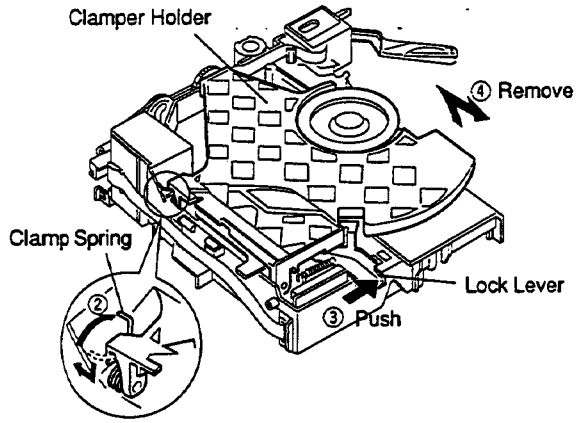

⑫ Remove the float rubber from the Servo Mechanism ASSY GM. At this time the float rubber should remain on the float base side. (To install it on the float base when it has been removed, push it into place with a thin cylindrical object.
(フロームゴムからサーボメカASSY GMをはずす。この時フローゴムはフロートベース側に残すこと。)(はずれたとき、フロートベースに取付けるには細い棒状のもので押し込むと入る。)



## ■ REMOVING THE ARM (A) (アーム(A)のはずしかた)

① Remove the float base together with the Servo Mechanism ASSY GM. (Refer to Steps ①–⑨ for "■ Removing the Servo Mechanism ASSY GM" .)
(サーボメカASSY GMごとフロートベースをはずす(サーボメカASSYのはずしかた①-⑨参照。)

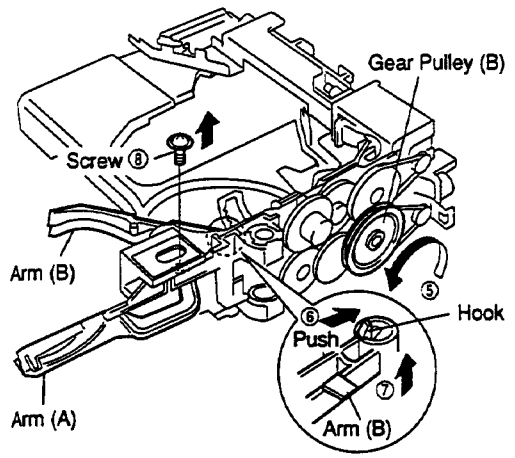
②-④
Remove the clamp spring and remove the clamp holder while pressing down on the lock lever.
(クランプスプリングをはずし、ロックレバーを押しながらクランパーホルダーをはずす。)




⑤ Turn gear pulley (B) and position Arm (A ) as shown below.
(ギアプーリー(B)を回して、アーム(A)を下図の位置にする。)

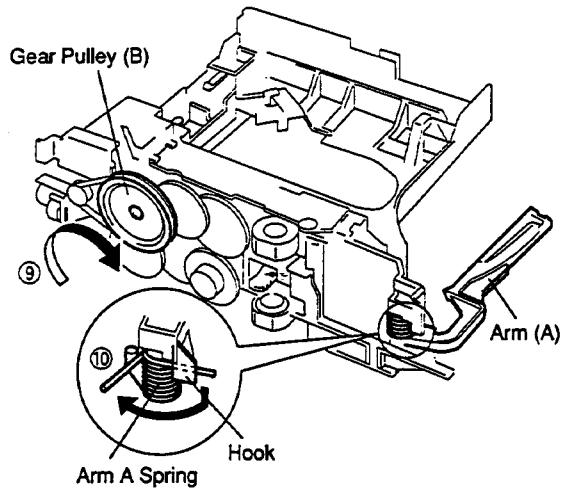
⑥,⑦
Remove Arm (B) while pressing the hook in the direction of the arrow.
(フックを矢印方向に押しながらアーム(B)をはずす。)

⑧ Remove screw ⑧. (ネジ⑧をはずす。)

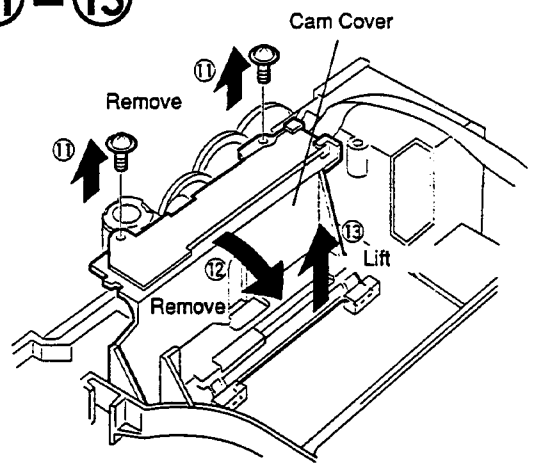



⑨ Turn gear pulley (B) and position Arm (A) as shown in below.
(ギアプーリー(B)を回してアーム(A)を下図の位置にする。)

⑩ Remove the Arm A spring from its hook.
(アームAスプリングをフック部からはずす。)




⑪-⑬

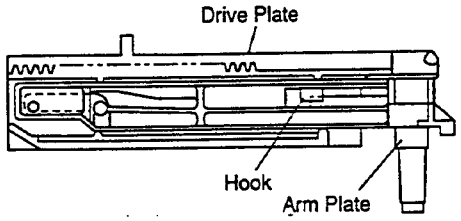



⑭ Remove drive plate, Arm plate, Arm A spring and Arm (A). (Refer to Steps ③-④ on page 7.)
(ドライブプレート、アームプレート、アームAスプリング、アーム(A)をはずす。) (7ページの③-④ 参照)

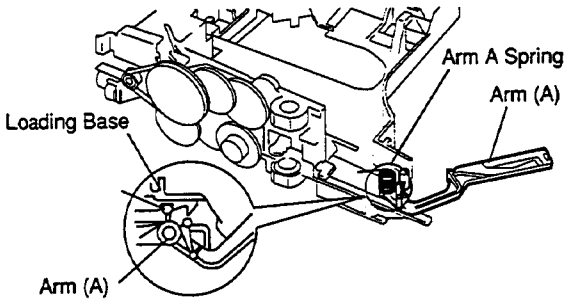
## ■ FOR REASSEMBLY, REVERSE THE DISASSEMBLY PROCEDURE, AND IN ADDITION CARRY OUT THE FOLLOWING ITEMS.

**(組み立てる時は、はずしかたの手順を逆に行う、但し以下の項目を行うこと。)**

① Assemble the arm plate as shown below, watching out for the drive plate hook.
(ドライブプレートのフックに注意して下図の位置にアームプレートを組み合わせる。)

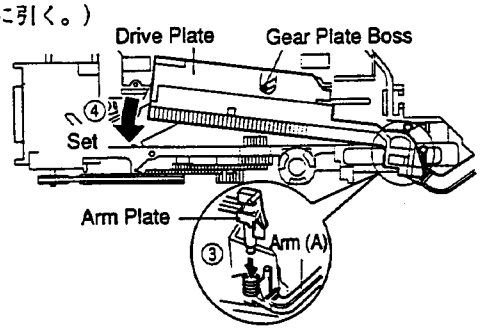



② Place Arm (A) and the Arm A spring on the loading base, being careful to keep them in the position shown in below.
(アーム(A)とアームAスプリングを下図のように合わせ、位置に注意してローディングベースにのせる。)

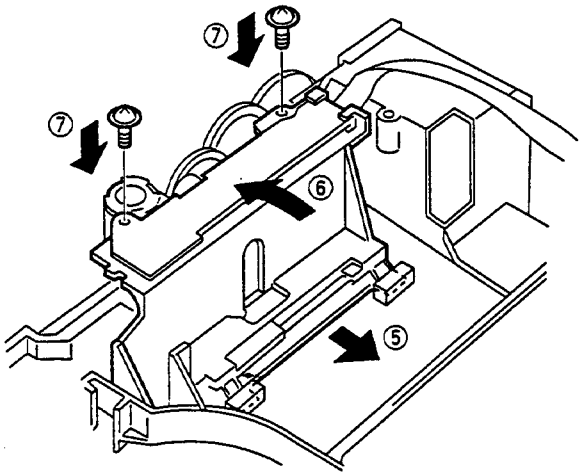



③ Set the drive plate and arm plate, which were assembled in Step ①, on the Arm (A) side as shown below.
At this time be careful to keep Arm (A) in the position described in Step ②.
(①でセットしたドライブプレートを下図のようにアーム(A)側からセットする、この時アーム(A)が②で合わせた位置からずれないように注意する。)

④ Insert the gear plate boss into the drive plate groove and pull it toward you.
(ギアプレートのボスをドライブプレートの溝に入れ手前に引く。)

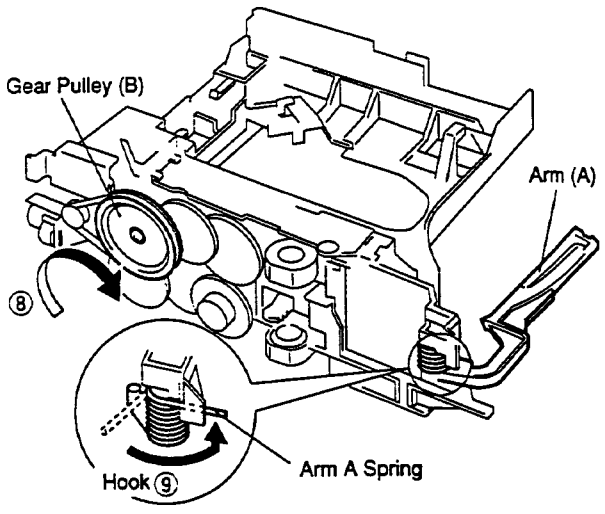



⑤-⑦

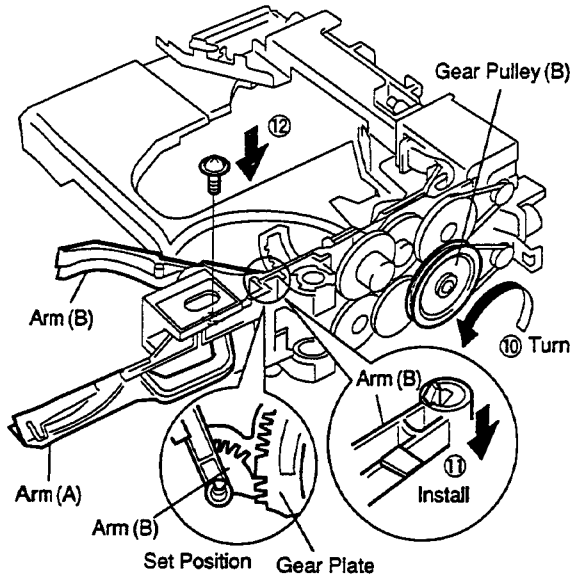



⑧ Turn gear pulley (B) and position Arm (A) as shown in below.
(ギアプーリー(B)を回してアーム(A)を下図の位置にする。)

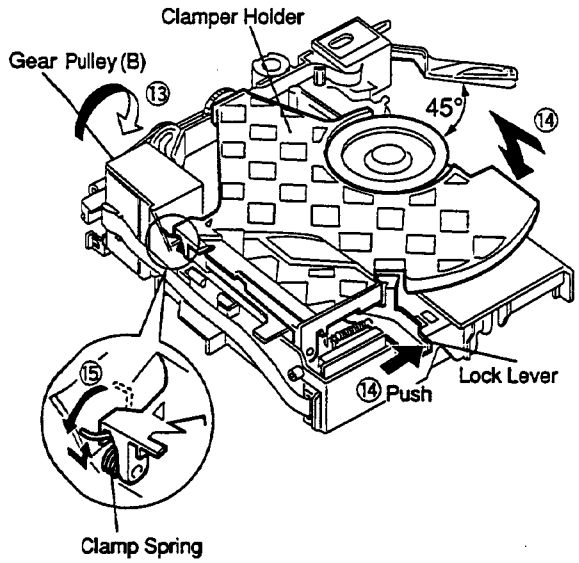
⑨



## ⑩–⑫

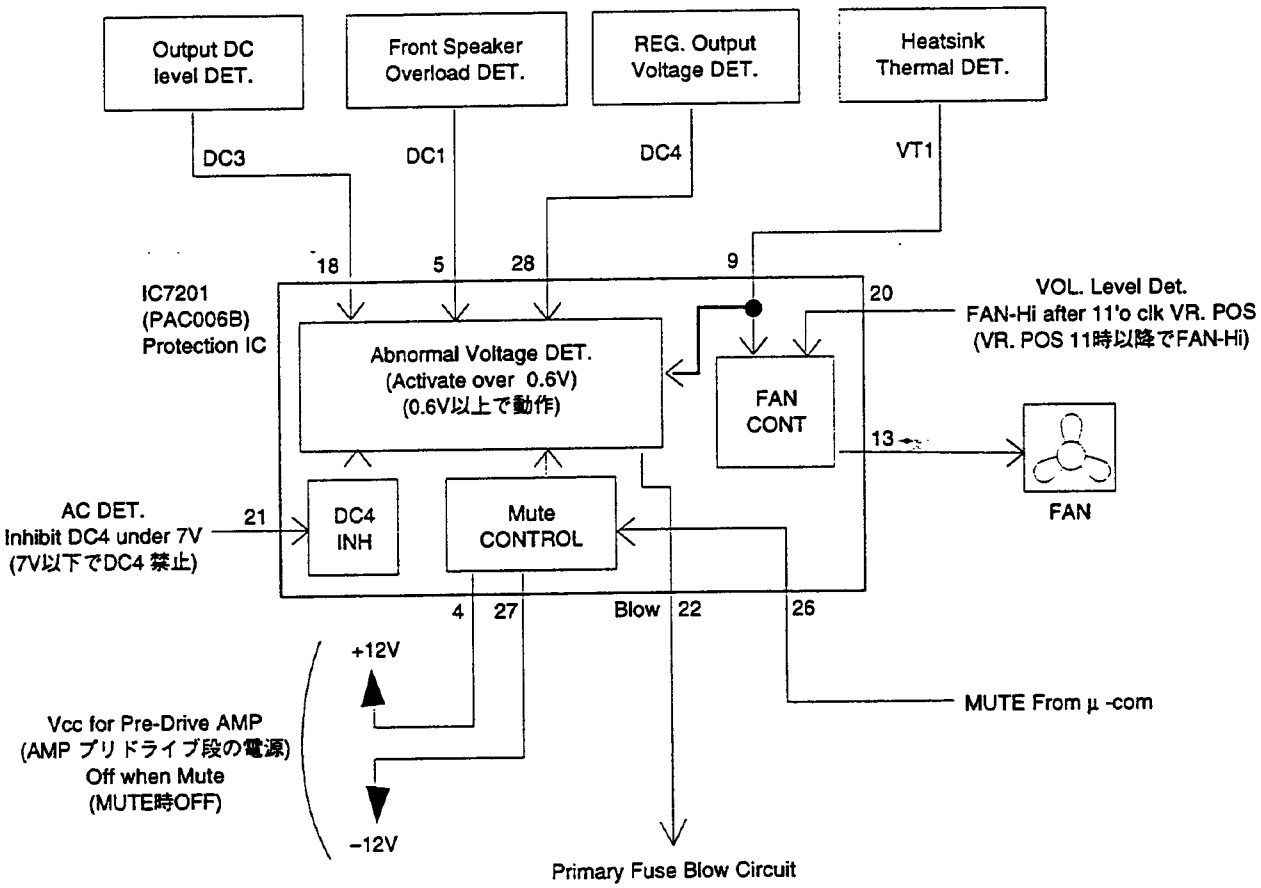

Gear Pulley (B)
⑫
Arm (B)
⑩ Turn
Arm (B)
⑪
Install
Arm (A)
Arm (B)
Set Position
Gear Plate

## ⑬–⑮


Clamper Holder
Gear Pulley (B)
⑬
45°
⑭
⑮
⑭ Push
Lock Lever
Clamp Spring

# 2. HOW TO DIAGONISE CIRCUIT WHEN PRIMARY FUSE BLOWS
(パワーアンプモジュール診査方法)

## 2.1 OUTLINE OF PROTECTION CIRCUIT
(保護回路の概要)




### Outline of Operation

*DC1: When overload is detected at Front speaker terminal DC1 will become over ±0.6V and Protection IC will mute predrive amp circuit (±12V OFF).
(*DC2:Overload detection for rear speaker.)

*DC3: When DC voltage(over ±3DCV) is detected at output of Power amp, DC3 will become over±0.6V and will first mute predrive amp circuit for 2sec and then if does not resume normal condition Fuse blow circuit willbe activated.

*DC4: DC4 detect abnormal voltage at voltage regulator output. When becomes over ±0.6V, Fuse blow circuit will be activated.

*VT1: When temperature of the heatsink become over 105C°, VT1 will become under +7.5V and will first mute predrive amp circuit for 2sec and then if does not resume normal condition Fuse blow circuit will be activated.

(動作概要)

*DC1: DC1が±0.6V以上で フロントスピーカー端子のショートと判定、Muteをかける。(±12V OFFする)
(*DC2:リアスピーカーオーバーロード検出用端子)

*DC3: DC3が+0.6V以上でパワーアンプ出力異常と判定、MUTEを約2秒間かけ復帰しない場合は22ピンがHになりFUSE BLOW回路動作。

*DC4: DC4が+0.6V以上で電源レギュレーター部出力の異常と判定、22ピンがHになりFUSE BLOW回路動作。

*VT1: 放熱器温度 ～95℃：FAN-SPEED LOW, 95℃～ 104℃：FAN-SPEED HIGH, 105℃(VT1=+7.5V)で MUTEを2秒間かけ復帰しない場合はFUSE BLOW回路動作 。

## 2.2 DIAGNOSTIC FLOW CHART (診査フロー)

Primary Fuse blown
(1次側ヒューズ溶断)

Disconnect Speakers.
Unplug AC Plug.
(スピーカーを外す
ACコンセントを抜く)

Remove Bonnet and replace fuse with new one. Remove CD changer unit.
(ボンネットを開け、ヒューズを交換する
CDチェンジャー部を取り除く)

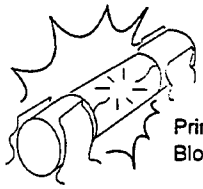
Discharge ±B1.
(±B1を放電させる)

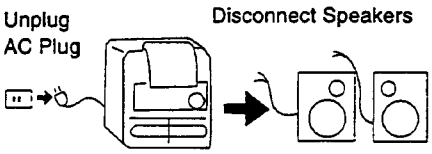
Check Power Trs. Replace if they are defective.
(テスターでパワーTRの良否を確認する)

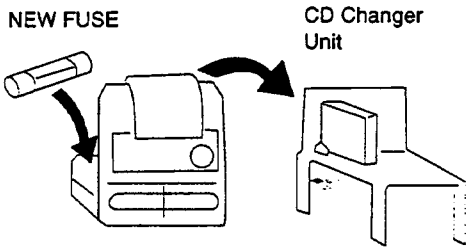
CHECK : Q7511, Q7512
Q7513, Q7514

Cut Fuse blow line by desoldering +lead of C7602.
*Remember to solder the lead after end of diagnostics.
(C7602片足を浮かしヒューズブロー回路が動作しないようにする。)
(診断が終わった後必ず
半田付けし元の状態に戻すこと)

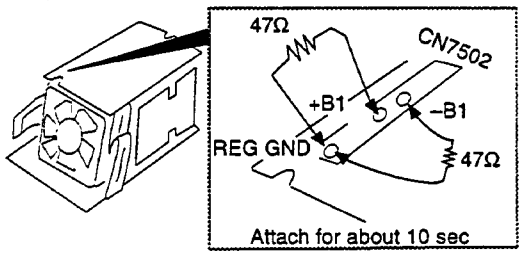
TURN TO NEXT PAGE
(次頁参照)



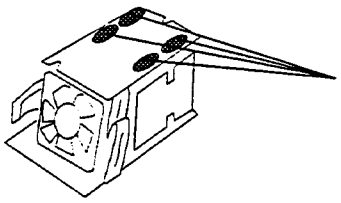




Discharge ±B1
Remove Resistors after ±B1 are discharged
(放電後、抵抗を取り外す)

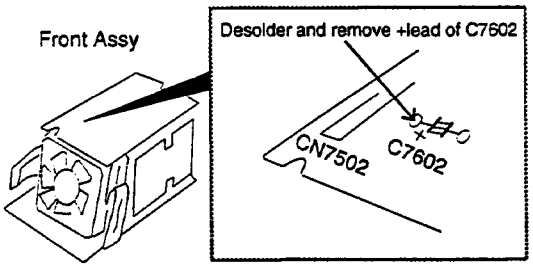



Front Assy



Check short circuit between Emitter and Collector of Q7511, Q7512, Q7513, Q7514

Front Assy



AC PLUG IN
POWER ON
(AC プラグを差し込む
パワーオン)

Check voltage at IC7201 Pin22.
(IC7201 22Pブロー電圧確認)

Blow = 0V

No Trouble inside unit.
Could be external problems.
(異常なし
セット外部要因
の可能性あり)

Blow > +3V

Check output voltage of each protection circuit.
(各保護回路出力電圧確認)
(IC7201:DC1(pin5), DC2(pin12), DC3 (pin18), DC4 (pin28), VT1 (pin9)

DC1, DC2 >+0.6V
DC1, DC2 < -0.6V

Speaker overload detected.
Check short circuit between speaker output and GND.
(スピーカー出力のオーバーロード検出
スピーカー出力ラインとGND間のショート確認)

VT1< 7. 5V

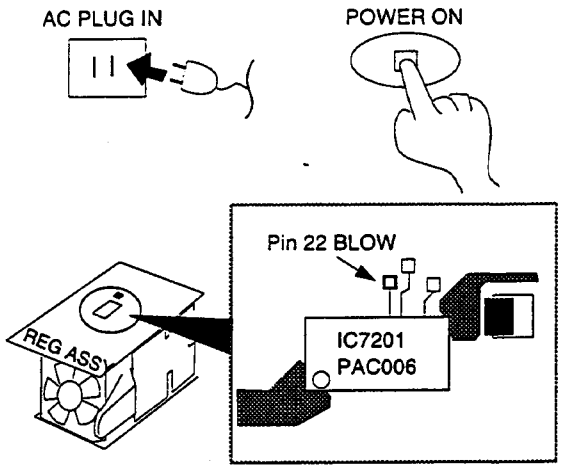
Over current detected at Heatsink thermal detection terminal.
(ヒートシンク温度検出端子のオーバーカレント検出)
CHECK: Q7301, Q7302, VR7201, FAN, IC7201

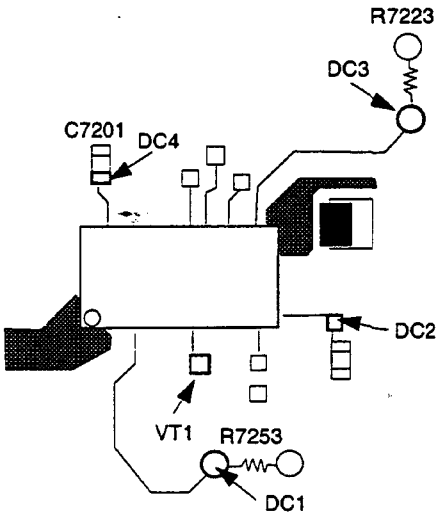
DC4>+0.6V
DC4<-0.6V

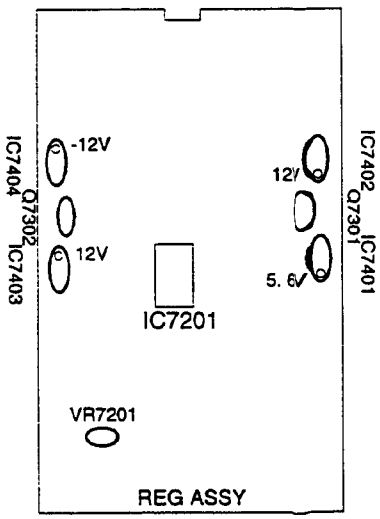
Abnormal voltage detected at output of regulators.
(レギュレター出力にて異常電圧検出)
CHECK: IC7401, IC7402, IC7403, IC7404 and Regulators in REG ASSY.

DC3>+0.6V
DC3<-0.6V

Turn to next page
(次頁参照)



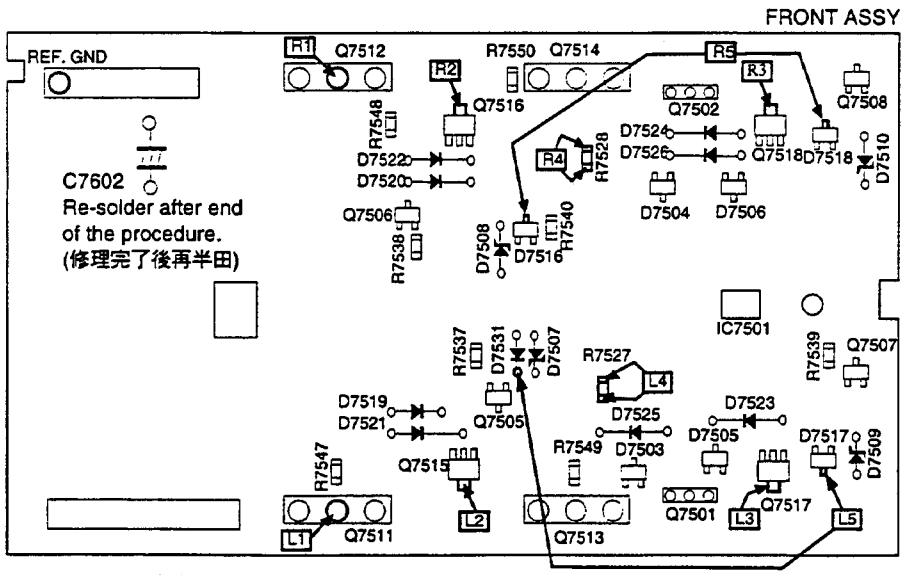



POWER AMP check.
(パワーアンプ部チェック)

| CHECK POINT<br>e=emitter, b=base<br>c=collecter | VOLTAGE | DEFECT PART |
|---|---|---|
| L ch | | |
| L1(Q7511c-GND)<br>(FAN-Hi) | +B1 | D7519, D7521, R7547, Q7511 |
| | - B1 | D7523, D7525, R7549, Q7513 |
| L2(Q7515c-GND) | +B1 | R7537, Q7505, Q7515 |
| | +B1-1V | D7519 |
| | 0V | R7547, D7519 |
| L3(Q7517c-GND) | - B1 | R7539, Q7507, Q7517 |
| | - B1+1V | D7525 |
| L4(R7527) | 0V | R7549, D7525 |
| L5(D7533-D7517) | 0V | D7503, D7505, Q7501 |
| | +13V, 3V | D7507, D7509 |
| | 0V | D7517, D7531 |
| R ch | | |
| R1(Q7512c-GND)<br>(FAN-Hi) | +B1 | D7520, D7522, R7548, Q7512 |
| | - B1 | D7524, D7526, R7550, Q7514 |
| R2(Q7516c-GND) | +B1 | R7538, Q7516, Q7506, |
| | +B1-1V | D7520 |
| | 0V | R7548, D7520 |
| R3(Q7518c-GND) | - B1 | R7540, Q7508, Q7518 |
| | - B1+1V | D7526 |
| | 0V | R7550, D7526 |
| R4(R7528) | 0V | D7504, D7506, Q7502 |
| R5(D7516-D7518) | +13V, 3V | D7508, D7510 |
| | 0V | D7516, D7518 |

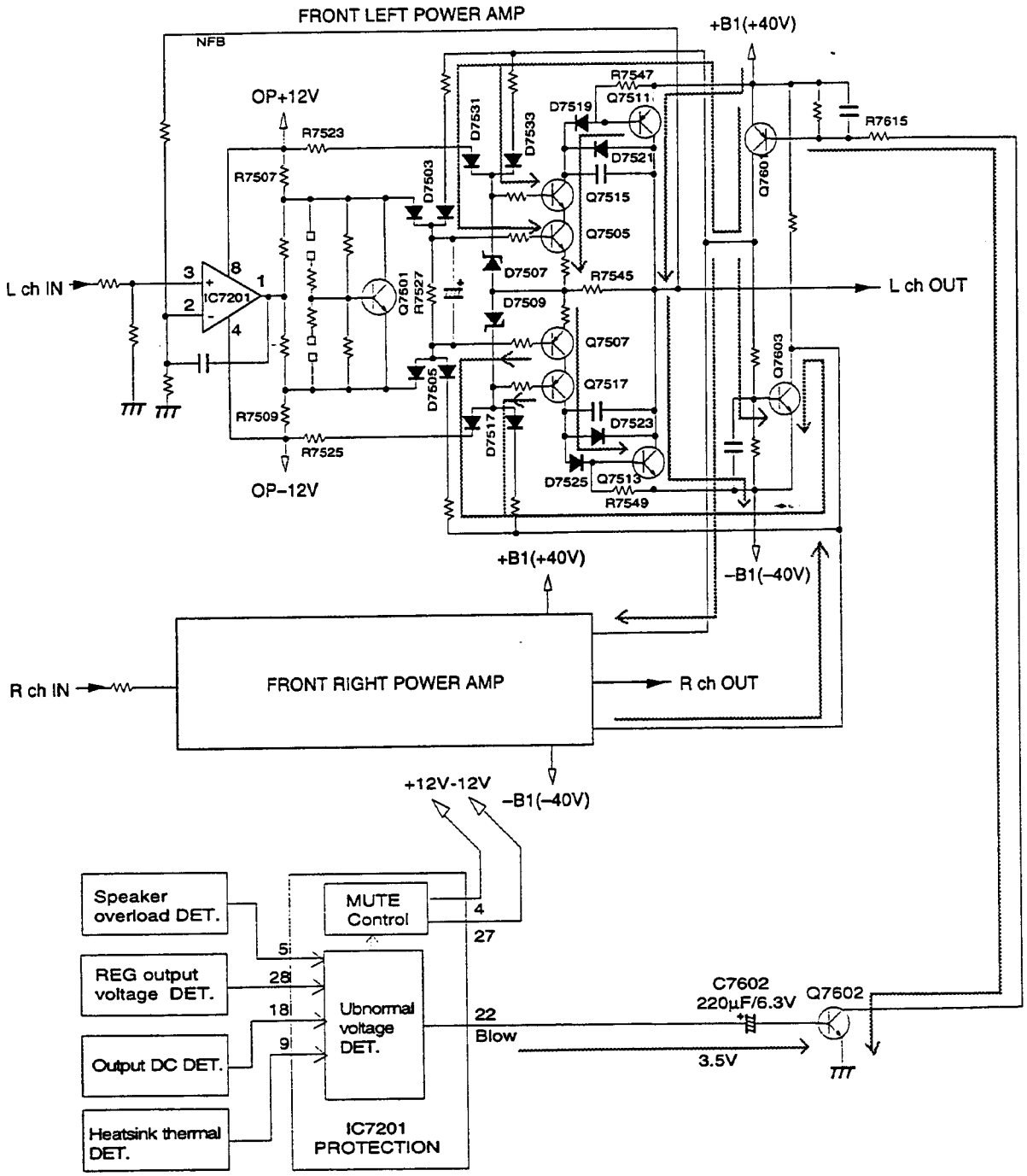
FRONT ASSY




ATTENTION (注意)

Switch on the power after replacing defective parts and confirm blow voltage. If the voltage is 0V re-solder the +lead of C7602 and this is the end of the procedure.
Do not forget to re-solder the lead of C7602.
(部品交換後電源をONにして、ブロー電圧が0Vである事を確認する。 最後に、外したC7602のリード線を半田付けし作業を完了して下さい。 C7602は忘れずにに半田付けして下さい。
半田を外したまま修理を完了すると非常に危険ですので注意して下さい。)

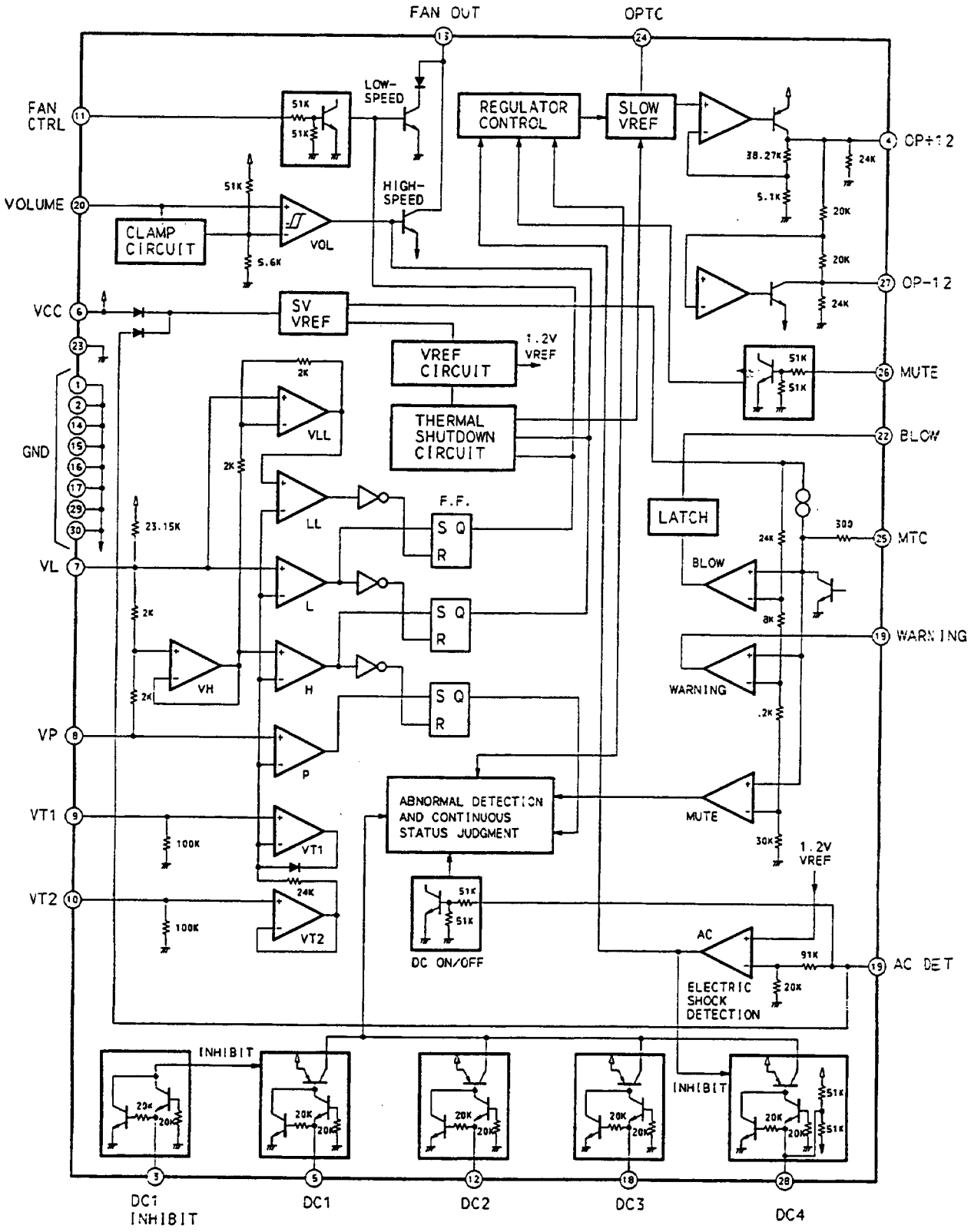
## 2.3 BLOCK DIAGRAM (FUSE BLOW OPERATION)
## (ブロック図) (ヒューズブロー動作時)




This circuit will blow primary fuse by Turning on output transistors when protection circuit have been activated. By this action other parts
may be dameged at the same time. Please check the parts, where current will flow when fuse blow circuit activates, that are shown in the diagram above.
(この回路では保護回路動作時、出力段TrをONすることにより1次側のヒューズを容断します．この際他のパーツが故障することもあります．ヒューズ容断時は上記の電流が流れる部品をあわせて確認下さい．)

## 2.4 IC BLOCK DIAGRAM
(IC ブロックダイアグラム)

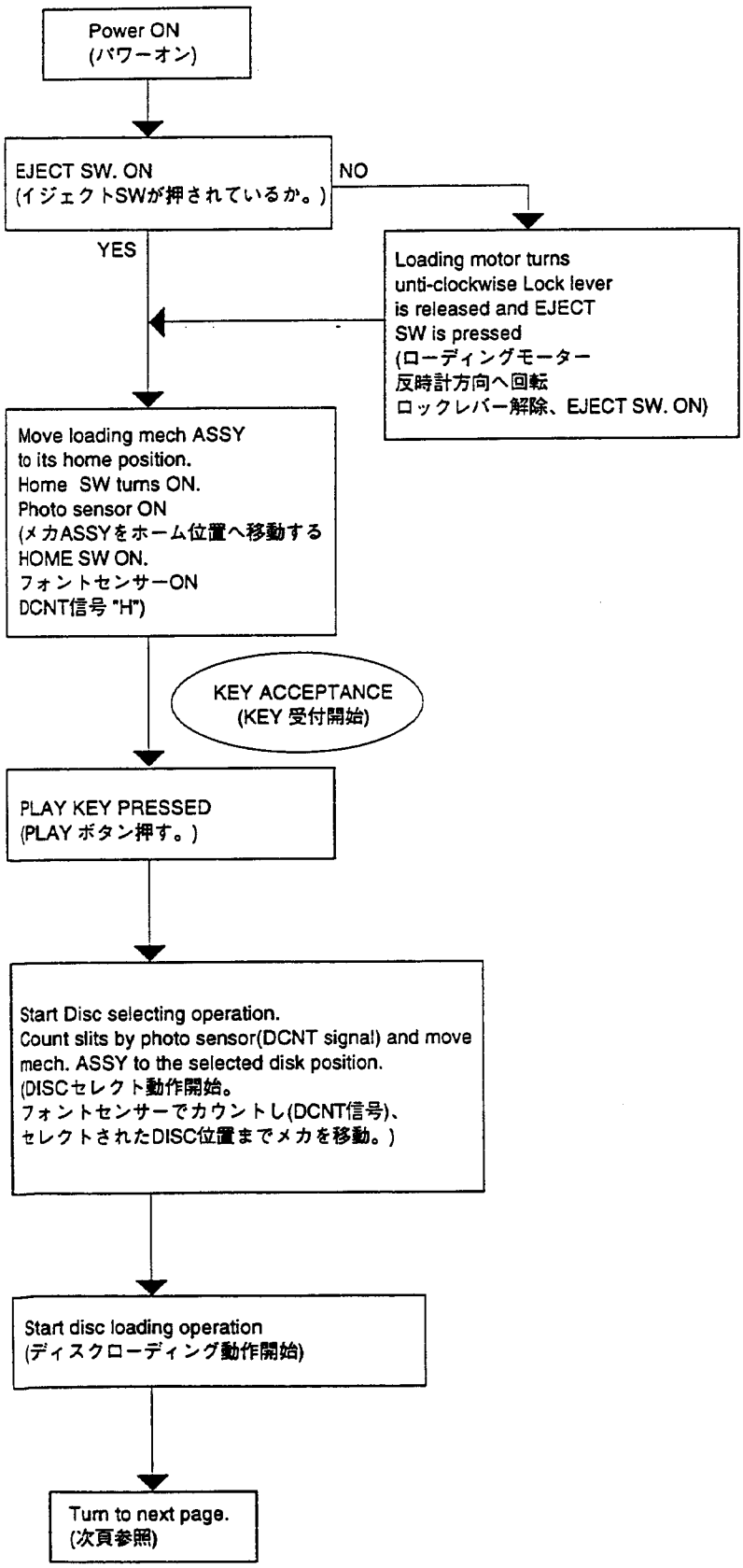
### ● PAC006B ( IC7201)

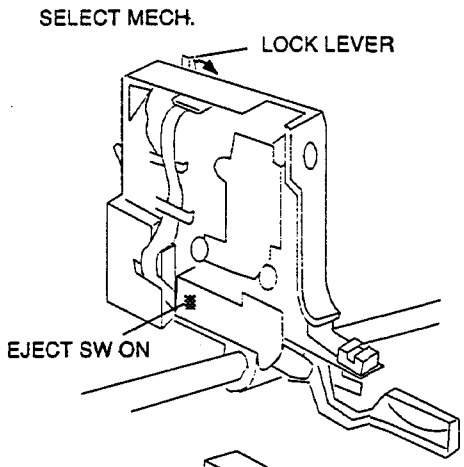


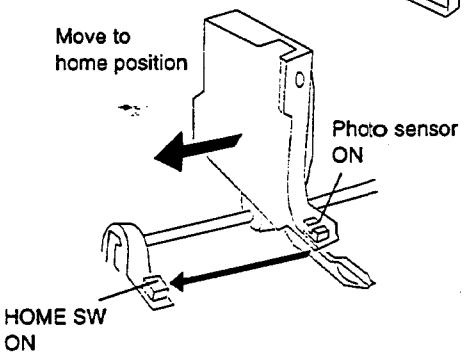
# 3. FLOW CHART (フローチャート)

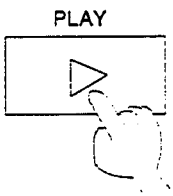
## 3. 1 GM MECH. ASSY (GM メカASSY)

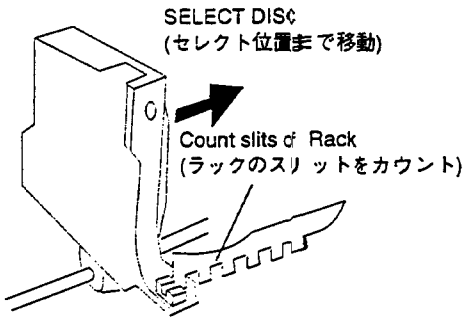
### OPERATIONAL FLOW CHART(動作フロー)



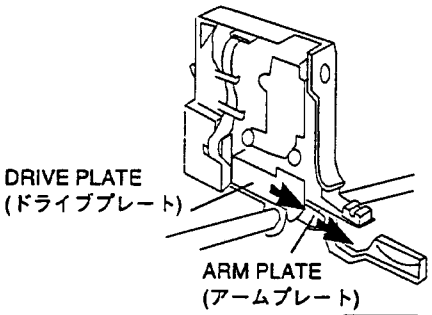



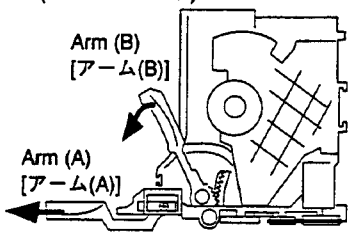



Start disc loading operation
Loading motor starts turning clockwise.
(ディスクローディング動作開始、
ローディングモーター時計方向へ
回転開始。)

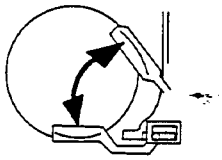



Drive plate & Arm plate start moving forwards.
(ドライブプレート、アームプレート前方へ
移動開始)

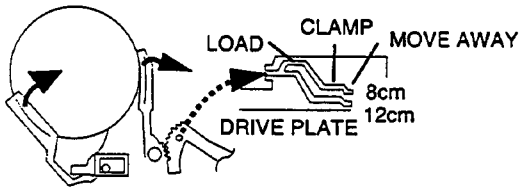



Arm (B) moves to the direction of the arrow
Arm (A), which is connected to Arm plate moves
forwards.
(ドライブプレート上の溝に沿ってアーム(B)が矢印の方向
へ移動アームプレートに連結されたアーム(A)が前方へ移動)

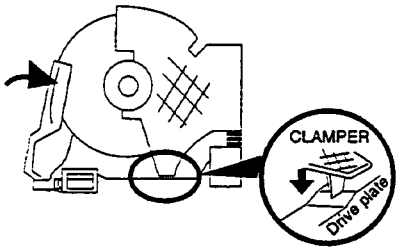
When Arm (B) catches the disc the distance between
Arm (A) and Arm (B) is fixed.
The disc is catched by two arms
(アーム(B)が ディスクに当ると、ディスクの径に応じて
アーム (B)の位置決めがなされる。
ここでディスクがホールドされる)



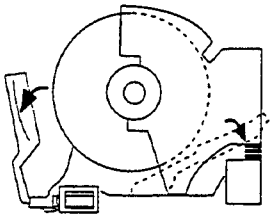
Arm plate & Drive plate moves further on.
The Arm (A) and Arm (B) starts moving upwards holding
the disc between each other
(アームプレート、ドライブプレートが更に前方へ移動
するとアーム (A)の回転軸がローディングベースの一つ目
の窪みに入りアーム (A)が上に上がり始める。
同時にアーム(B)はドライブプレートの溝によって上に
戻り始める。)



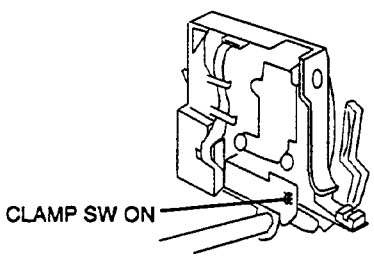

Disc is loaded in the mechanism and Arm plate stops.
Drive plate moves further on and Clamper slides
down the slope on the Drive plate and clamps the disc.
(アーム (A)が上がり切ったところでアームプレートが停止、
ドライブプレートは更に前方へ進む。
ドライブプレートの傾斜に沿ってクランパーが下がり
ディスクがクランプされる。)




Drive plate moves further on and pushes the Arm (A) to move Arm (A)
away from the disc. Also Arm (B) moves away from the disc due to the
slit on the Drive plate.
(更にドライブプレートが移動し、アーム(A)を押しアーム (A)の回転軸が
ローディングベースの２つめの溝に押し込まれアーム(A)がディスクから
離れる方向に動く、またアーム(B)もドライブプレートの溝によりディス
クから離れる方向へ移動する。)



Drive plate moves and turns on CLAMP SW.
(ドライブプレートがCLAMP SWをONする。)




Loading motor stops and Servo
operation starts.
(ローディングモーター回転 STOP
サーボ動作開始。)

## 3.2 CD SLOT-IN MECH. (SLOT-IN 部)

### OPERATIONAL FLOW CHART (動作フロー)

On disk insertion
(DISC挿入時)

↓

Disc inserted
(DISC 挿入)

↓

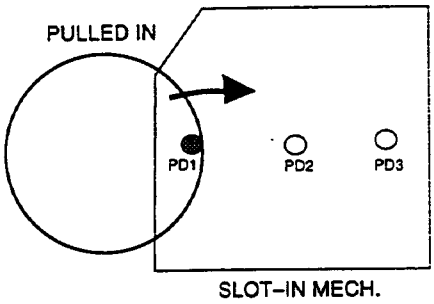
Once Photo Diode 1 is interrupted by a disc the roller starts turning and the disc is pulled in.
(PD1が遮られると ローラーが回転開始。Discを引き込む。)

↓

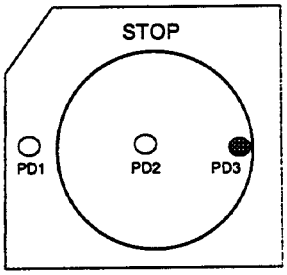
When Photo Diode3 is interrupted by the disc and Photo diode 1 become on, Roller stops.
(ディスクが引き込まれPD3が遮られた後、PD 1 が導通したところでローラーが止まる。)

↓

Loading mech. ASSY moves to the Disc number 0 position. Loading motor starts turning.
Drive plate moves forwards and pushes slide plate.
Disc is released from the slot mech assy and falls on to Arm (A).
(ローディングメカASSYがDISC 0 番へ移動し
ローディングメカASSYのローディングモーターが回転。
ドライブプレートが前方へ移動しスロットインメカ部の
スライドプレートが押されディスクがアーム(A)の上に落ちる。)




SLOT-IN MECH.




SLOT-IN MECH.

On disc ejecting
(DISC吐き出し時)

↓

Roller starts turning.
(マイコン制御により
ローラー回転開始)

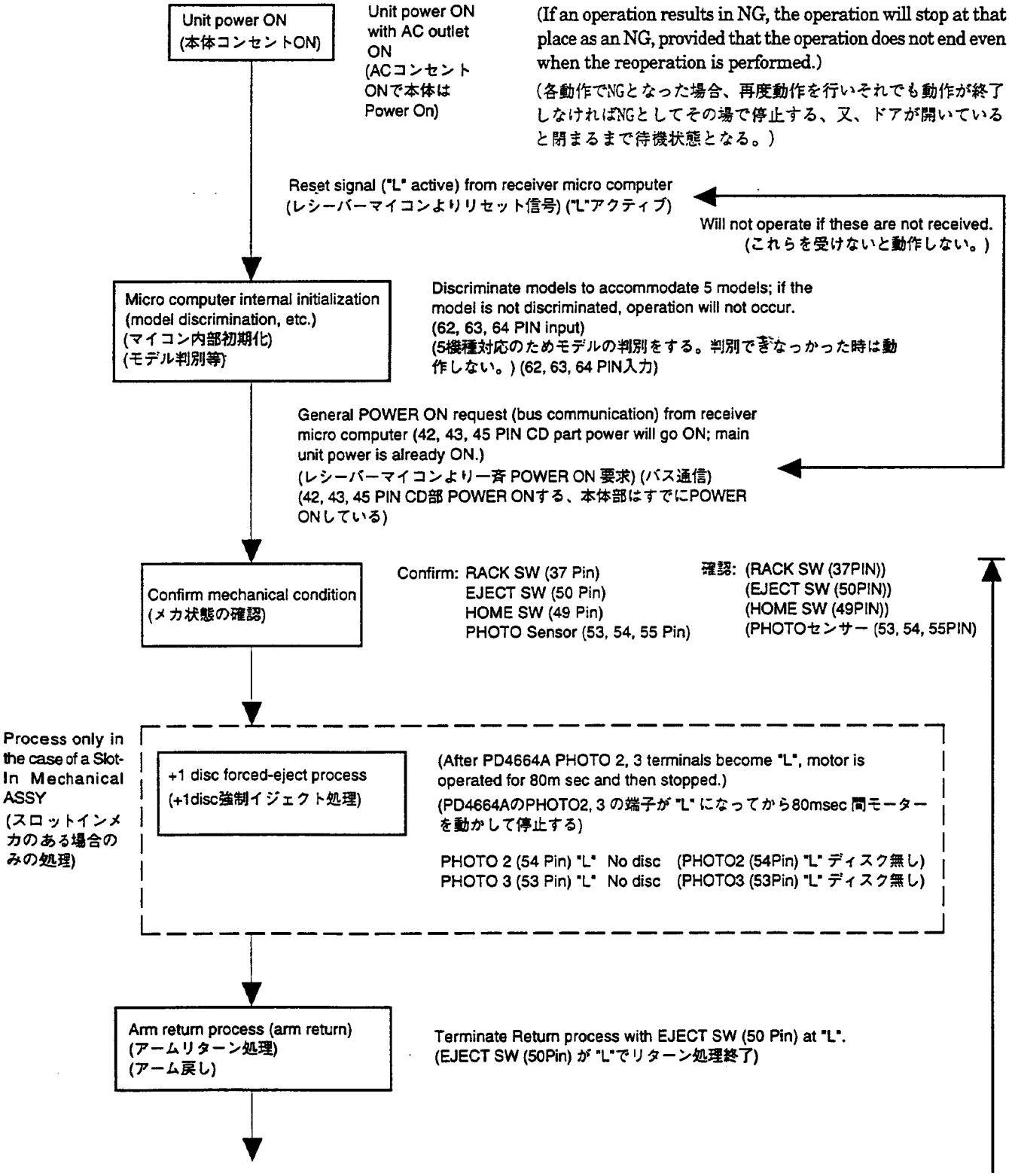
↓

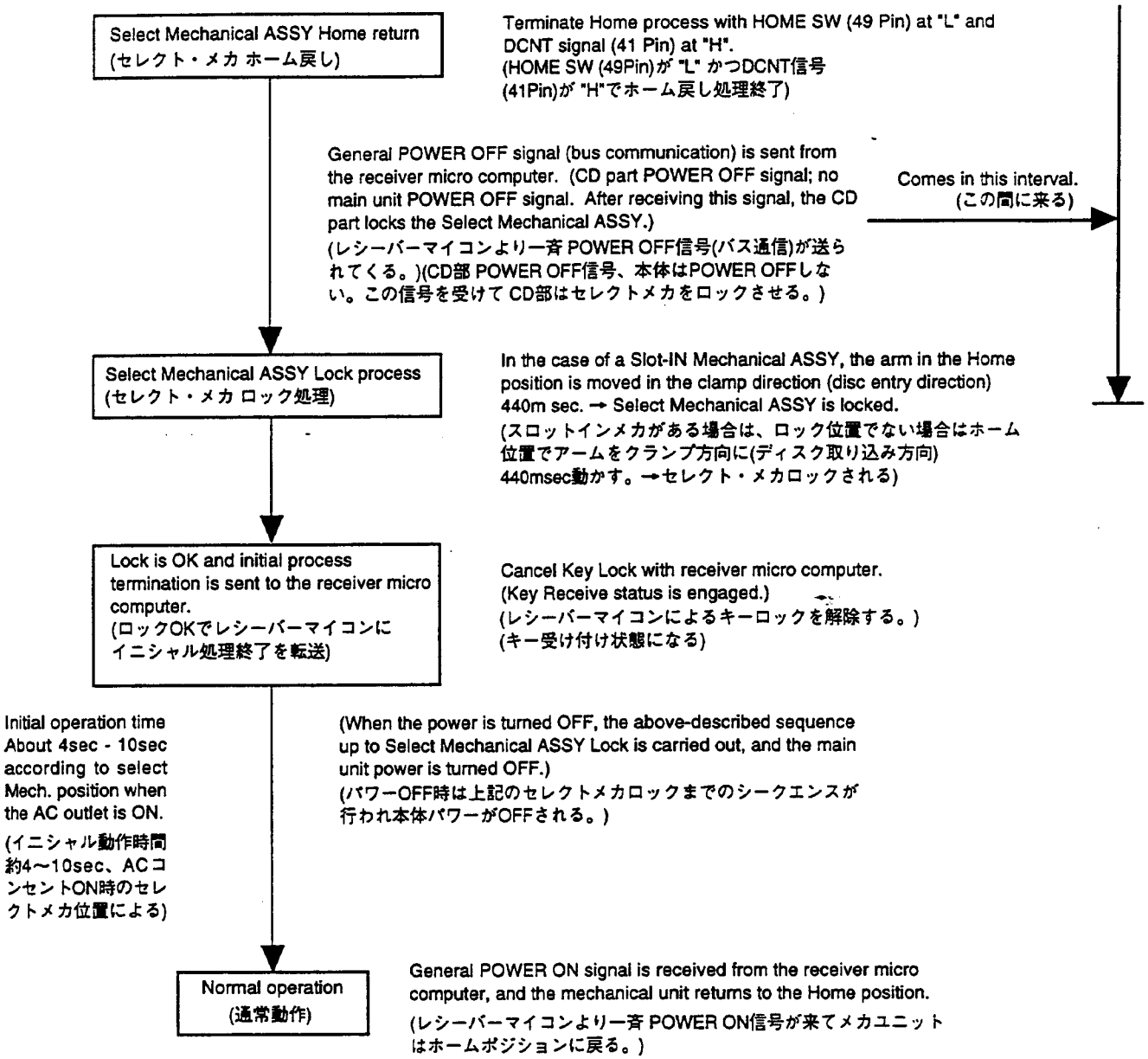
Disc is pushed out, and
Roller stops few milliseconds
after Photo Diode 2 is interrupted.
(ディスクが押し出され PD 2 が一旦遮られ再び導通してから数msec 後 ローラー回転 STOP。)

## 3.3 GM MECH. CD MICRO-COMPUTER (GMメカ CDマイコン)
### EX. PD4644A (IC8001: CD ASSY) for XR-P760F

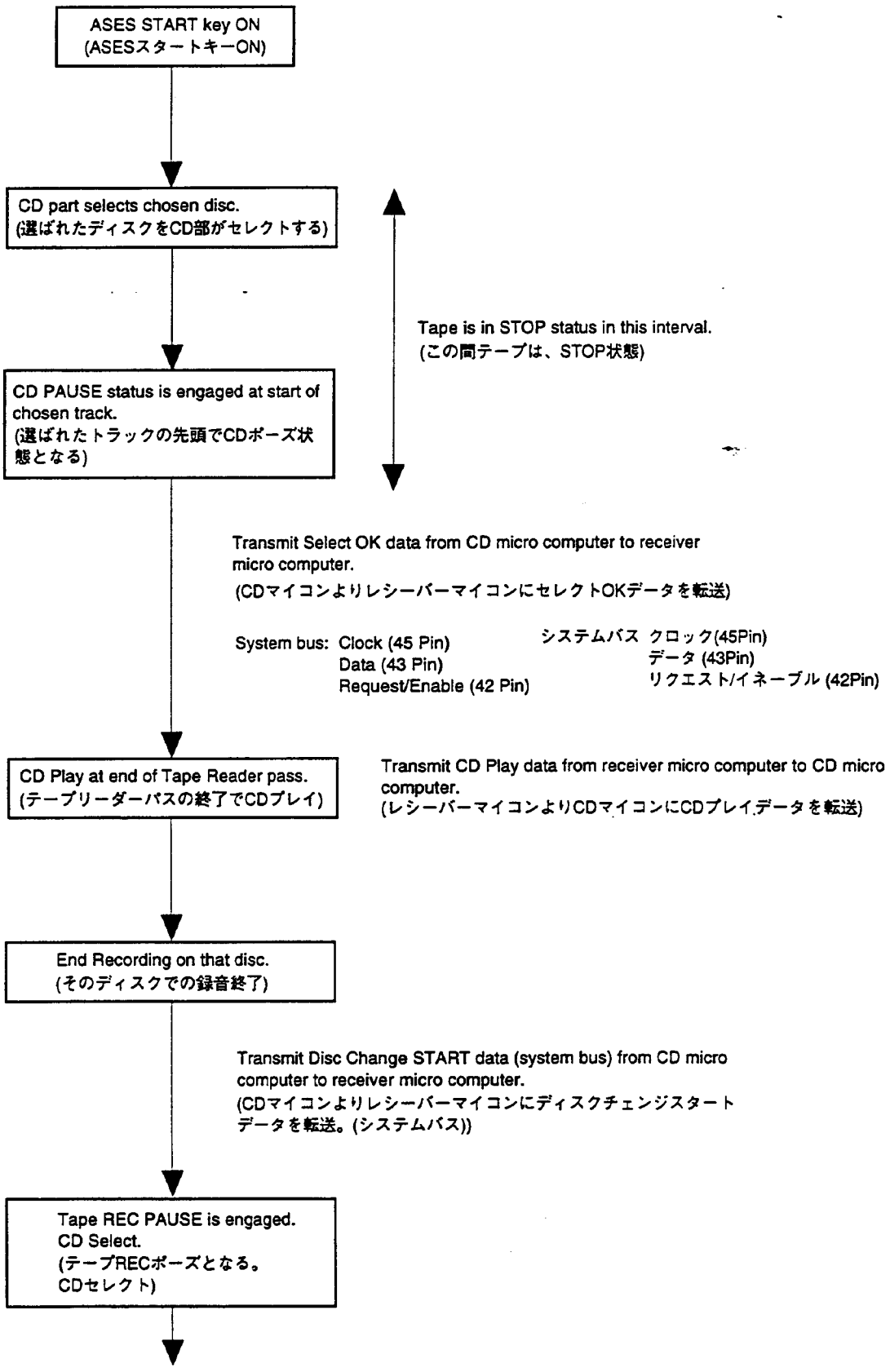
### OPERATIONAL FLOW CHART (動作フロー)

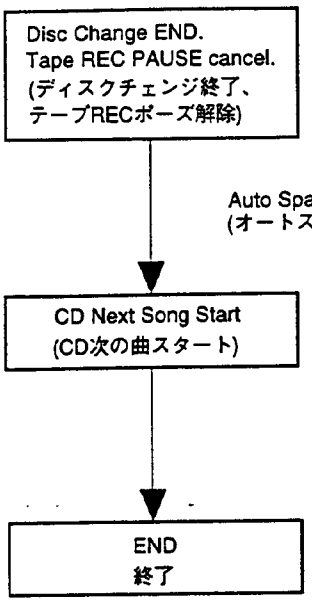
●Sequence when AC outlet is ON (ACコンセントON時のシーケンス)


Unit power ON
(本体コンセントON)
Unit power ON with AC outlet ON
(ACコンセントONで本体はPower On)
(If an operation results in NG, the operation will stop at that place as an NG, provided that the operation does not end even when the reoperation is performed.)
(各動作でNGとなった場合、再度動作を行いそれでも動作が終了しなければNGとしてその場で停止する、又、ドアが開いていると閉まるまで待機状態となる。)
Reset signal ("L" active) from receiver micro computer
(レシーバーマイコンよりリセット信号) ("L"アクティブ)
Will not operate if these are not received.
(これらを受けないと動作しない。)
Micro computer internal initialization
(model discrimination, etc.)
(マイコン内部初期化)
(モデル判別等)
Discriminate models to accommodate 5 models; if the model is not discriminated, operation will not occur.
(62, 63, 64 PIN input)
(5機種対応のためモデルの判別をする。判別できなっかった時は動作しない。) (62, 63, 64 PIN入力)
General POWER ON request (bus communication) from receiver micro computer (42, 43, 45 PIN CD part power will go ON; main unit power is already ON.)
(レシーバーマイコンより一斉 POWER ON 要求) (バス通信)
(42, 43, 45 PIN CD部 POWER ONする、本体部はすでにPOWER ONしている)
Confirm mechanical condition
(メカ状態の確認)
Confirm: RACK SW (37 Pin)
EJECT SW (50 Pin)
HOME SW (49 Pin)
PHOTO Sensor (53, 54, 55 Pin)
確認: (RACK SW (37PIN))
(EJECT SW (50PIN))
(HOME SW (49PIN))
(PHOTOセンサー (53, 54, 55PIN)
Process only in the case of a Slot-In Mechanical ASSY
(スロットインメカのある場合のみの処理)
+1 disc forced-eject process
(+1disc強制イジェクト処理)
(After PD4664A PHOTO 2, 3 terminals become "L", motor is operated for 80m sec and then stopped.)
(PD4664AのPHOTO2, 3 の端子が "L" になってから80msec 間モーターを動かして停止する)
PHOTO 2 (54 Pin) "L" No disc (PHOTO2 (54Pin) "L" ディスク無し)
PHOTO 3 (53 Pin) "L" No disc (PHOTO3 (53Pin) "L" ディスク無し)
Arm return process (arm return)
(アームリターン処理)
(アーム戻し)
Terminate Return process with EJECT SW (50 Pin) at "L".
(EJECT SW (50Pin) が "L"でリターン処理終了)


Select Mechanical ASSY Home return
(セレクト・メカ ホーム戻し)
Terminate Home process with HOME SW (49 Pin) at "L" and DCNT signal (41 Pin) at "H".
(HOME SW (49Pin)が "L" かつDCNT信号 (41Pin)が "H"でホーム戻し処理終了)
General POWER OFF signal (bus communication) is sent from the receiver micro computer. (CD part POWER OFF signal; no main unit POWER OFF signal. After receiving this signal, the CD part locks the Select Mechanical ASSY.)
(レシーバーマイコンより一斉 POWER OFF信号(バス通信)が送られてくる。)(CD部 POWER OFF信号、本体はPOWER OFFしない。この信号を受けて CD部はセレクトメカをロックさせる。)
Comes in this interval.
(この間に来る)
Select Mechanical ASSY Lock process
(セレクト・メカ ロック処理)
In the case of a Slot-IN Mechanical ASSY, the arm in the Home position is moved in the clamp direction (disc entry direction) 440m sec. → Select Mechanical ASSY is locked.
(スロットインメカがある場合は、ロック位置でない場合はホーム位置でアームをクランプ方向に(ディスク取り込み方向) 440msec動かす。→セレクト・メカロックされる)
Lock is OK and initial process termination is sent to the receiver micro computer.
(ロックOKでレシーバーマイコンに イニシャル処理終了を転送)
Cancel Key Lock with receiver micro computer.
(Key Receive status is engaged.)
(レシーバーマイコンによるキーロックを解除する。)
(キー受け付け状態になる)
Initial operation time
About 4sec - 10sec according to select Mech. position when the AC outlet is ON.
(イニシャル動作時間 約4〜10sec、ACコンセントON時のセレクトメカ位置による)
(When the power is turned OFF, the above-described sequence up to Select Mechanical ASSY Lock is carried out, and the main unit power is turned OFF.)
(パワーOFF時は上記のセレクトメカロックまでのシークエンスが行われ本体パワーがOFFされる。)
Normal operation
(通常動作)
General POWER ON signal is received from the receiver micro computer, and the mechanical unit returns to the Home position.
(レシーバーマイコンより一斉 POWER ON信号が来てメカユニットはホームポジションに戻る。)

● Sequence during Program ASES (Program is incorporated and sequence starts from CD STOP status)
(● プログラムASESの時のシーケンス) (プログラムが組まれていてCD ストップ状態からのシーケンス)


ASES START key ON
(ASESスタートキーON)
CD part selects chosen disc.
(選ばれたディスクをCD部がセレクトする)
CD PAUSE status is engaged at start of chosen track.
(選ばれたトラックの先頭でCDポーズ状態となる)
Tape is in STOP status in this interval.
(この間テープは、STOP状態)
Transmit Select OK data from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにセレクトOKデータを転送)
System bus: Clock (45 Pin)
Data (43 Pin)
Request/Enable (42 Pin)
システムバス クロック(45Pin)
データ (43Pin)
リクエスト/イネーブル (42Pin)
CD Play at end of Tape Reader pass.
(テープリーダーパスの終了でCDプレイ)
Transmit CD Play data from receiver micro computer to CD micro computer.
(レシーバーマイコンよりCDマイコンにCDプレイデータを転送)
End Recording on that disc.
(そのディスクでの録音終了)
Transmit Disc Change START data (system bus) from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにディスクチェンジスタートデータを転送。(システムバス))
Tape REC PAUSE is engaged.
CD Select.
(テープRECポーズとなる。
CDセレクト)




Transmit Disc Change END data from CD micro computer to receiver micro computer.
(CDマイコンよりレシーバーマイコンにディスクチェンジ終了データを転送)

(Minimum time between songs on tape
During disc changeover: 6 sec.
Within songs on same disc: 5 sec.)

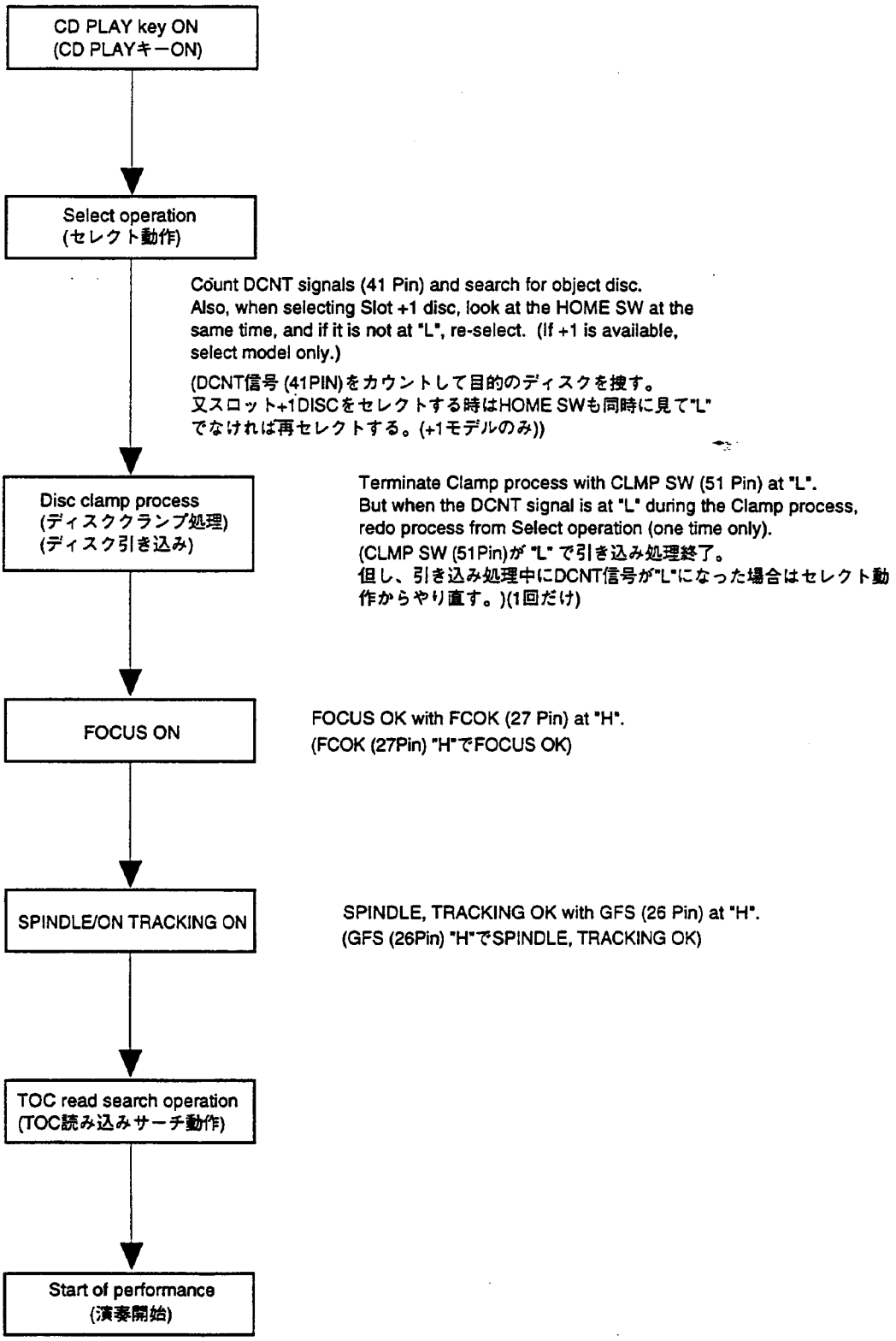
(テープ曲間最短時間
DISC 交換時:6sec
同DISC内曲時:5sec)

Engage ASES END at end of recording of all songs, and stop both Tape and CD. Program remains as it is.
(全曲録音終了でASES END、テープ、CDとも ストップする。プログラムはそのまま残る。)

Reference DISC changeover time
From DISC STOP of 1st disc to DISC PLAY of 2nd disc: about 6 sec.
From DISC STOP of 1st disc to DISC PLAY of 25th disc: about 10 sec.

(参考 DISC交換時間
1枚目DISC STOPから2枚目DISC PLAYまで:約6sec
1枚目DISC STOPから25枚目DISC PLAYまで:約10sec)

● Sequence during PLAY operation (from Mechanical ASSY Home standby at CD function)
(● PLAY操作時のシーケンス) (ファンクションCDでメカ・ホーム待機中から)


CD PLAY key ON
(CD PLAYキーON)
Select operation
(セレクト動作)
Count DCNT signals (41 Pin) and search for object disc.
Also, when selecting Slot +1 disc, look at the HOME SW at the same time, and if it is not at "L", re-select. (If +1 is available, select model only.)
(DCNT信号 (41PIN)をカウントして目的のディスクを捜す。
又スロット+1DISCをセレクトする時はHOME SWも同時に見て"L"でなければ再セレクトする。(+1モデルのみ))
Disc clamp process
(ディスククランプ処理)
(ディスク引き込み)
Terminate Clamp process with CLMP SW (51 Pin) at "L".
But when the DCNT signal is at "L" during the Clamp process, redo process from Select operation (one time only).
(CLMP SW (51Pin)が "L" で引き込み処理終了。
但し、引き込み処理中にDCNT信号が"L"になった場合はセレクト動作からやり直す。)(1回だけ)
FOCUS ON
FOCUS OK with FCOK (27 Pin) at "H".
(FCOK (27Pin) "H"でFOCUS OK)
SPINDLE/ON TRACKING ON
SPINDLE, TRACKING OK with GFS (26 Pin) at "H".
(GFS (26Pin) "H"でSPINDLE, TRACKING OK)
TOC read search operation
(TOC読み込みサーチ動作)
Start of performance
(演奏開始)

## 3.4 IC INFORMATION (IC情報)

| Pin No. | Symbol | Name | I/O | Description | Remarks |
|---|---|---|---|---|---|
| 1 | P94/FIP6 | G6 | O | FL drive DIGIT output<br>(FL 駆動用DIGIT出力) | Outputs "L" |
| 2 | P93/FIP5 | G5 | O | | |
| 3 | P92/FIP4 | GRID G4 | O | | |
| 4 | P91/FIP3 | G3 | O | | |
| 5 | P90/FIP2 | G2 | O | | |
| 6 | P81/FIP1 | G1 | O | | |
| 7 | P80/FIP0 | GØ | O | | |
| 8 | Vdd | +5V | — | | |
| 9 | P27 | DISP CLK | O | Clock output for display data transmission<br>(表示データー送信用クロック) | |
| 10 | P26 | DISP DATA | O | Data output for display | |
| 11 | P25 | MUTE | O | Muting control output | "H" MUTE |
| 12 | P24 | ⁻XRST | O | Reset for LSI | "⌐¬": Reset |
| 13 | P23 | ⁻XLAT | O | LSI control data latch pulse | "⌐¬": Latch |
| 14 | SCK1 | CD CLK | O | LSI serial clock output | Serial clock for LSI |
| 15 | SO1 | CD DATA | O | LSI control data serial output | LSI control data |
| 16 | SI1 | SQSO | I | Subcode Q-data serial input | Subcode data input |
| 17 | RESET | ⁻RST | I | CPU reset | CPU reset "⌐¬" |
| 18 | P74 | ⁻LD ON | O | Laser diode control output | "L": ON ; "H": OFF |
| 19 | P73 | ⁻XTAL ON/OFF | O | LSI oscillation control output | "L": oscillation ; "H": Stop |
| 20 | AVss | GND | — | | |
| 21 | P17 | CD-G CE | O | CD-G control latch pulse | Outputs "L" with models that have no CD-G<br>(CD-Gのないモデルでは "L" を出力する) |
| 22 | P16 | CD-G MUTE | O | CD-G muting output | |
| 23 | P15 | (CD-G RST) | O | Unused | |
| 24 | P14 | (CD-GNTSC) | O | Unused | |
| 25 | P13 | SENS | I | LSI operating status multi-mode input<br>(LSI動作状態多モード入力) | |
| 26 | P12 | GFS | I | Frame synchronizing Lock input<br>(フレームシンクロック入力) | "H" GFS OK |
| 27 | P11 | FCOK | I | Focus OK input | "H" FOCUS OK |
| 28 | P10 | POWER ON | O | NC | LSI power ON/OFF (Unused) |
| 29 | AVdd | +5V | — | | |
| 30 | AVref | GND | — | | |

| Pin No. | Symbol | Name | I/O | Description | Remarks |
|---|---|---|---|---|---|
| 31 | P04 | INSD | I | Slider INSIDE SW input | "L" INSD SW ON |
| 32 | XT2 | Open | — | | |
| 33 | Vss | GND | — | | |
| 34 | X1 | Main system | — | | |
| 35 | X2 | Clock (4.19M) | — | | |
| 36 | P37 | TEST | I | | "H" TEST |
| 37 | P36 | ⁻DOOR CLOSE | I | RACK SW input | "L" Close completed |
| 38 | P35 | ⁻DOOR OPEN | I | Pull Up except for motorized door<br>(電動ドア以外はプルアップ) | "L" Open completed (Unused) |
| 39 | P34 | DSLT | O | Select motor output | Select motor Output |
| 40 | P33 | DSRT | O | | |
| 41 | P32 | DCNT | I | Disc count pulse input | Disc count pulse |
| 42 | P31 | SB REQ/ENA | I/O | System bus communication Request/Enable | System bus Request or Enable |
| 43 | P30 | SB DATA | I/O | System bus communication data input/output | System bus data IN/OUT |
| 44 | INTP3 | SCOR | I | Subcode synchronizing input | ▼ : Subcode synch |
| 45 | INTP2 | SB CLK | I | System bus communication clock input | ▲, ▼ : System bus clock |
| 46 | INTP1 | STBYRELE | I | CPU Stop mode cancel pulse | ▼ : Micro computer Standby mode cancel input |
| 47 | INTP0 | RMDT | I | Remote control data input | ▼ :Remote control data |
| 48 | IC(VPP) | GND | — | | |
| 49 | P72 | ⁻HOME | I | Disc select HOME SW input | "L": Mechanical HOME position |
| 50 | P71 | ⁻EJECT | I | Loading out SW input | "L": Eject completed |
| 51 | P70 | ⁻CLMP | I | Clamp completion SW input | "L": Clamping completed |
| 52 | Vdd | +5V | — | | |
| 53 | P127 | P1S3 | I | Slot part photo sensor input<br>(Pull Up with models where Slot Mechanical ASSY+1 is not loaded)<br>(+1のない機種はプルアップ) | +1 part photo sensor input |
| 54 | P126 | P1S2 | I | | |
| 55 | P125 | P1S1 | I | | |
| 56 | P124 | IN1 | O | Output for +1 Eject /Load<br>(Output "L" for models where Slot Mechanical ASSY +1 is not loaded. Set to NC)<br>(+1のない機種は出力 "L" です。NC) | Output for +1 Eject / Load |
| 57 | P123 | OUT1 | O | | |
| 58 | P122 | L IN | O | Loading mechanical output | Loading mechanical output |
| 59 | P121 | L OUT | O | | |
| 60 | P120 | DOOR IN | O | Output "L" for models without motorized door.<br>Set to NC<br>(電動ドアでない機種は出力 "L" です。NC) | Motorized door output<br>(Unused) |
| 61 | P117 | DOOR OUT | O | | |

| Pin No. | Symbol | Name | I/O | Description | Remarks |
|---|---|---|---|---|---|
| 62 | P116 | KD2 | I | Model discrimination input | Key data input |
| 63 | P115 | KD1 | I | | |
| 64 | P114 | KD0 | I | | |
| 65 | P113 | (LED RACK) | O | NC | "L" output (Unused) |
| 66 | P112/FIP20 | S10 | O | FL drive SEG output (FL 駆動用 SEG 出力) | SEG for sending<br>Outputs "L" with XR-P260F, XR-P560F, XR-P760F. Set to NC. (XR-P260F, XR-P560F, XR-760F では "L" を出力。NC) |
| 67 | P111/FIP19 | S8 | O | | |
| 68 | P110/FIP18 | SEG S0 | O | | |
| 69 | P107/FIP17 | S1 | O | | |
| 70 | P106/FIP16 | S5 | O | | |
| 71 | Vload | | — | GND or FLAC | Set to GND with XR-P260F, XR-P560F, XR-P760F and to FLAC with PD-Q160F, PD-F25 |
| 72 | P105/FIP15 | S6 | O | | |
| 73 | P104/FIP14 | S7 | O | | |
| 74 | P103/FIP13 | S2 | O | | |
| 75 | P102/FIP12 | S3 | O | | |
| 76 | P101/FIP11 | S4 | O | | |
| 77 | P100/FIP10 | S9 | O | | |
| 78 | P97/FIP9 | LED STYB | O | Stand by LED output (PD-F25 only) | LED standby |
| 79 | P96/FIP8 | LED RED | O | Selector LED output | LED red "H" is illuminated. |
| 80 | P95/FIP7 | LED GR | O | | LED green "H" is illuminated. |

Selector output and operation
(セレクター出力、動作)

| PIN | | STOP | Send right | Send left |
|---|---|---|---|---|
| 39 | DSLT | L | L | H |
| 40 | DSRT | L | H | L |

+1 Eject/Load
(+1 イジェクト/ロード)

| PIN | | STOP | Eject | Loading |
|---|---|---|---|---|
| 56 | IN1 | L | L | H |
| 57 | OUT1 | L | H | L |

Loading mechanical output
(ローディングメカ出力)

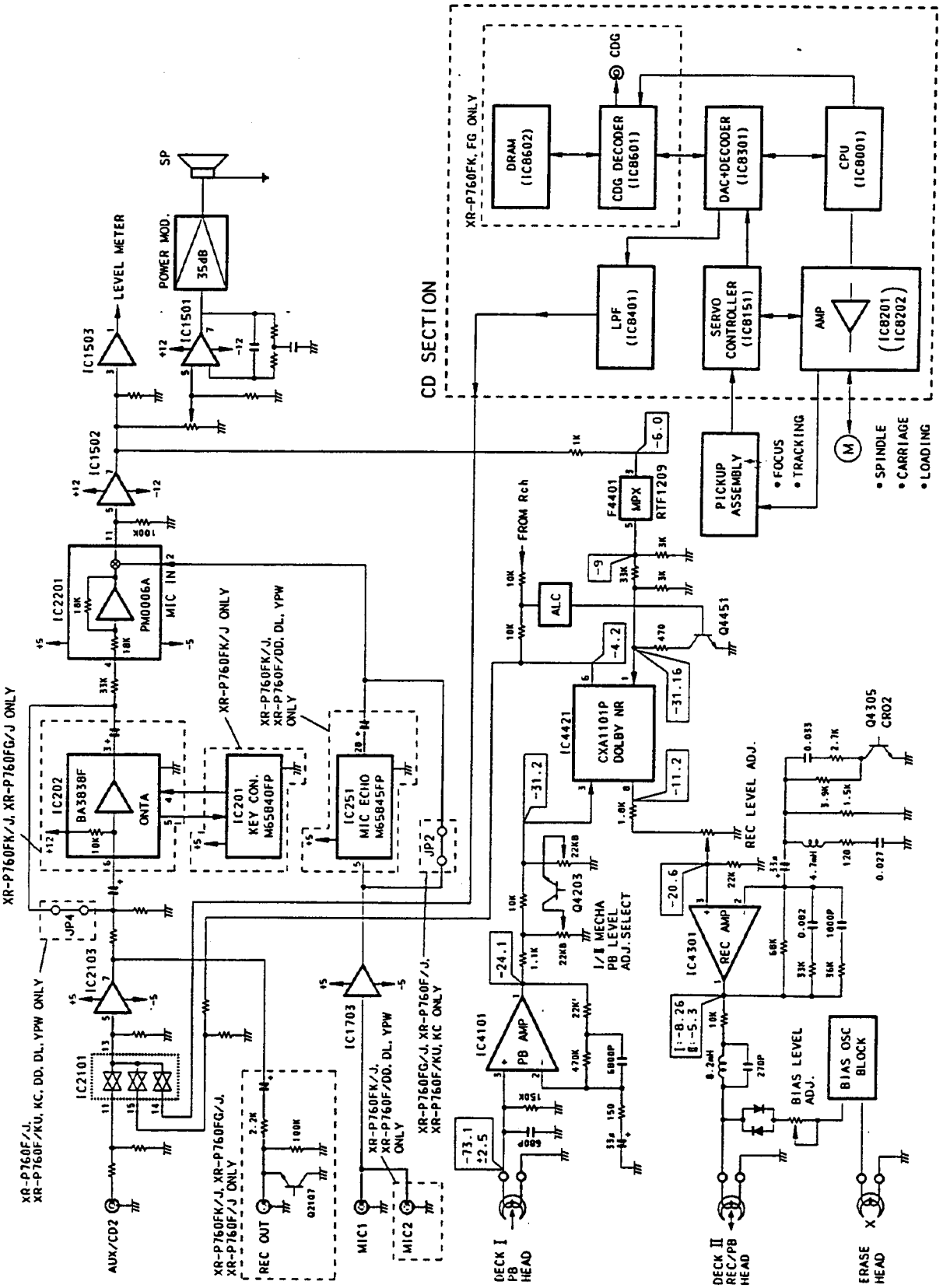
| PIN | | STOP | Clamp | Return |
|---|---|---|---|---|
| 58 | LIN | L | L | H |
| 59 | LOUT | L | H | L |

Note: The port output contents change with switching of the model discription terminal (pins 62-64) in the following table.

(注意：下表のモデル判別用端子(62-64 pin) の切換えでポート出力内容が変わります。)

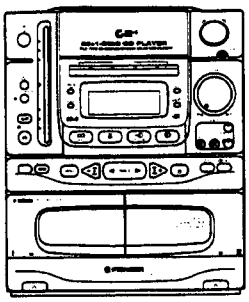
| PIN | | PD-Q160F | PD-F25 | XR-P260F | XR-P560F | XR-P760F | XR-P760F/J |
|---|---|---|---|---|---|---|---|
| 64 | KD0 | H | H | L | H | L | L |
| 63 | KD1 | H | H | H | L | L | H |
| 62 | KD2 | H | L | H | H | H | L |

# 4. BLOCK DIAGRAM (ブロックダイアグラム)



# Service Manual

PIONEER®
*The Art of Entertainment*



PION-04873

ORDER NO.
**RRV1429**

## STEREO FILE-TYPE CD CASSETTE DECK RECEIVER

# XR-P760F

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | Power Requirement | The voltage can be converted by the following method. |
|---|---|---|---|
| | XR-P760F | | |
| KU | ○ | AC120V | ———————— |
| KC | ○ | AC120V | ———————— |
| DD | ○ | AC110–127V/220–230V/240V | With the voltage selector |
| DL | ○ | AC110–120V/220–230V/240V | With the voltage selector |
| YPW | ○ | AC240V | ———————— |

- **For the circuit and mechanism descriptions, refer to the service guide RRV1430 for XR-P760F.**

## CONTENTS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# 1. SAFETY INFORMATION

**This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.**
**Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.**

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

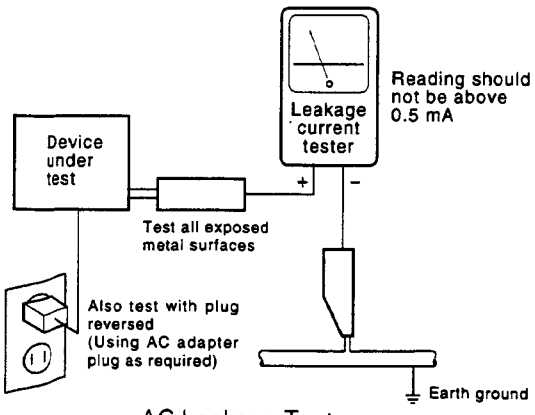
## (FOR USA MODEL ONLY)

### 1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

#### LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
-
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

**ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.**

### 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

**(FOR EUROPEAN MODEL ONLY)**

VARO !
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING !
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn varoitusmerkki

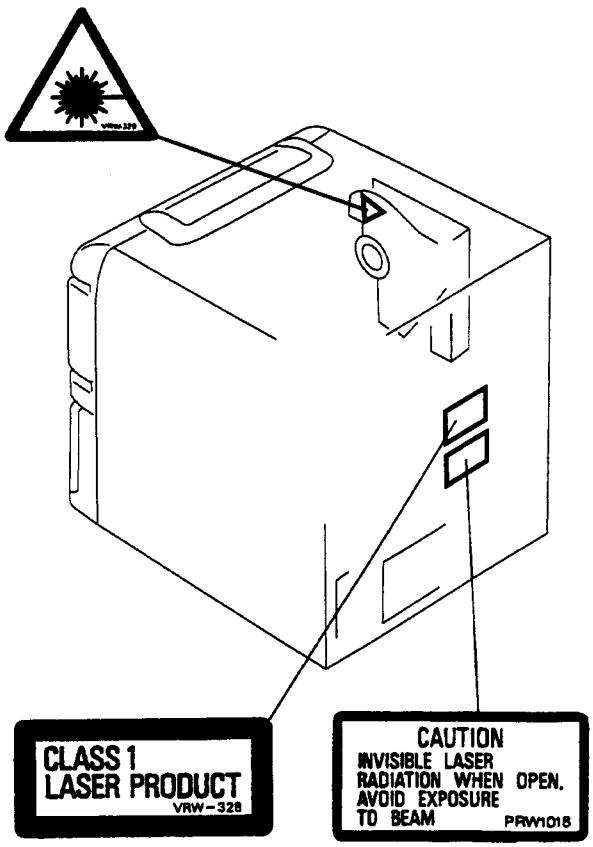
WARNING !
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780 – 785 nm

LASER
Picture 1
Warning sign for laser radiation

## LABEL CHECK (for DL and YPW types)




Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on $\overline{\text{CLMP}}$ terminal side ($\overline{\text{CLMP}}$ signal is OFF or high level.) Thus, the interlock will no longer function if the switch (S651) is deliberately set to $\overline{\text{CLMP}}$ terminal side. (low level)
   The interlock also does not function in the test mode*.
   Laser diode oscillation will continue, if pin 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* *Refer to page 74.*

# 2. EXPLODED VIEWS, PACKING AND PARTS LIST

*NOTES :*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

## 2.1 PACKING

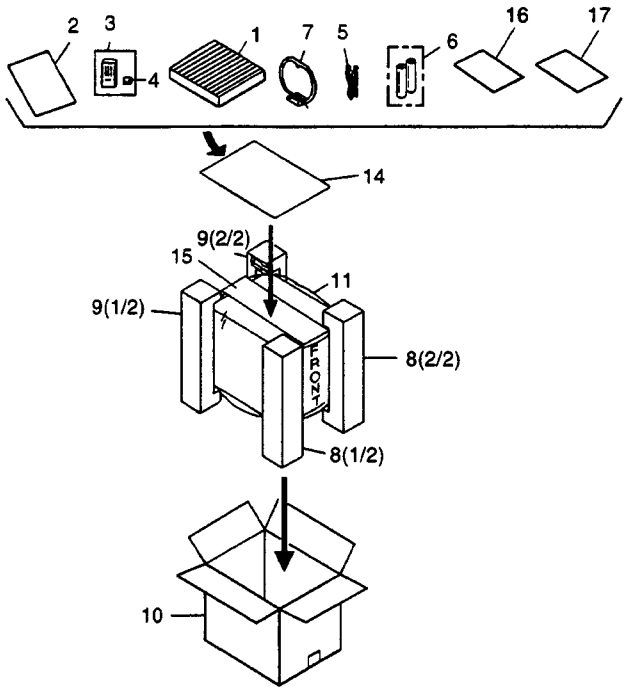
### ■ Contrast of XR-P760F/KU, KC, DD, DL and YPW

XR-P760F/KU, KC, DD, DL and YPW have the same construction except for the following:

| Mark | No. | Description | Part No. | | | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | KU type | KC type | DD type | DL type | YPW type | |
| | 2 | Operating instructions (English) | ARB7071 | ARB7071 | Not used | Not used | ARB7071 | |
| | 5 | FM antenna | ADH1017 | ADH1017 | ADH1016 | ADH1016 | ADH1016 | |
| | 10 | Packing case | AHD7230 | AHD7230 | AHD7232 | AHD7232 | AHD7289 | |
| | 14 | Poly. bag | DHL1097 | Not used | Not used | Not used | Not used | |
| NSP | 14 | Poly. bag | Not used | Z21-040 | Z21-040 | Z21-040 | Z21-040 | |
| | 16 | Operating instructions (French) | Not used | ARC7116 | Not used | Not used | Not used | |
| | 17 | Operating instructions (English, Spanish, Chinese) | Not used | Not used | ARC7112 | ARC7112 | Not used | |

### ■ Parts List for XR-P760F/KU

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | CD CASE RACK | AMR7066 |
| | 2 | OPERATING INSTRUCTIONS (English) | ARB7071 |
| | 3 | REMOTE CONTROL UNIT (CU-XR020) | AXD7068 |
| | 4 | BATTERY COVER | AZA7050 |
| | 5 | FM ANTENNA | ADH1017 |
| | 6 | BATTERY (R03, AAA) | VEM-022 |
| | 7 | LOOP ANTENNA | ATB7004 |
| | 8 | FRONT PAD LR | AHA7094 |
| | 9 | REAR PAD LR | AHA7095 |
| | 10 | PACKING CASE | AHD7230 |
| | 11 | PACKING SHEET | AHG7003 |
| | 12 | ..... | |
| | 13 | ..... | |
| | 14 | POLY. BAG | DHL1097 |
| | 15 | CAUTION CARTON | AHD7285 |



## 2.2 EXTERIOR

### ■ Contrast of XR-P760F/KU, KC, DD, DL and YPW

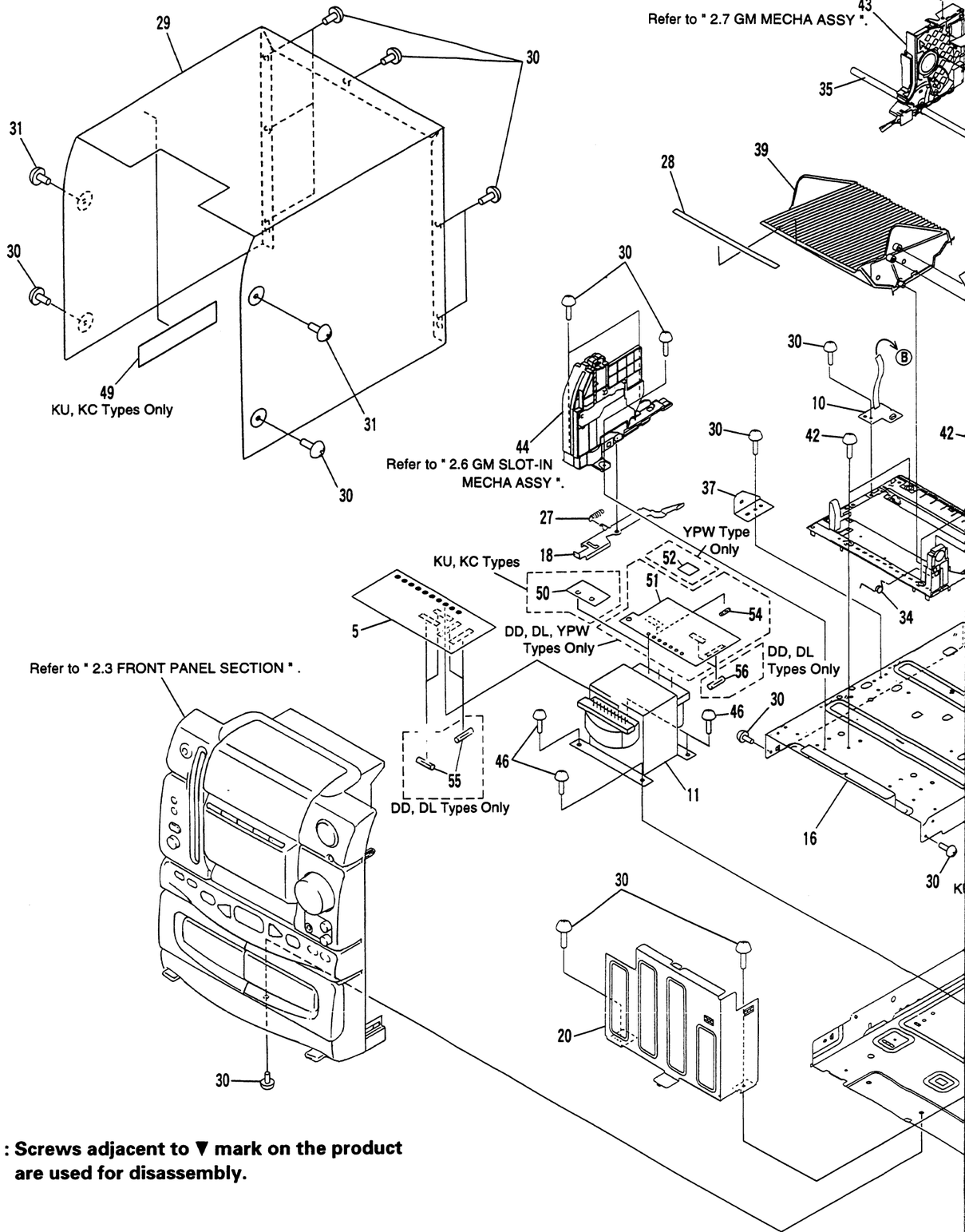
XR-P760F/KU, KC, DD, DL and YPW have the same construction except for the following:

| Mark | No. | Description | Part No. | | | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | KU type | KC type | DD type | DL type | YPW type | |
| | 3 | AF assy | AWZ7886 | AWZ7886 | AWZ7846 | AWZ7846 | AWZ7846 | |
| | 4 | VOL assy | AWZ7858 | AWZ7858 | AWZ7856 | AWZ7856 | AWZ7856 | |
| | 5 | SECONDARY assy | AWZ7864 | AWZ7864 | AWZ7863 | AWZ7863 | AWZ7864 | |
| NSP | 9 | SUB TRANS assy | AWZ7908 | AWZ7908 | Not used | Not used | Not used | |
| ⚠ | 11 | Power tranformer (T) | ATS7087 | ATS7087 | ATS7089 | ATS7089 | ATS7089 | |
| ⚠ | 12 | Fuse (6.3A, FU4) | VEK1026 | VEK1026 | Not used | Not used | Not used | |
| ⚠ | 15 | AC power cord | PDG1015 | PDG1015 | PDG1013 | ADG1131 | ADG1123 | |
| | 19 | Rear panel | ANC7284 | ANC7284 | ANC7286 | ANC7287 | ANC7392 | |
| | 32 | Strain relief | CM-22C | CM-22C | CM-22B | CM-22B | CM-22B | |
| | 49 | 65 label | ORW1069 | ORW1069 | Not used | Not used | Not used | |
| NSP | 50 | KUC assy | AWZ7909 | AWZ7909 | Not used | Not used | Not used | |
| | 51 | PRIMARY assy | Not used | Not used | AWZ7899 | AWZ7899 | AWZ7900 | |
| | 52 | YPW assy | Not used | Not used | Not used | Not used | AWZ7916 | |
| ⚠ | 53 | Voltage selector | Not used | Not used | AKX7002 | AKX7002 | Not used | |
| ⚠ | 54 | Fuse (5A, FU1) | Not used | Not used | REK-107 | REK-107 | REK-107 | |
| ⚠ | 55 | Fuse (T2A, FU5-FU8) | Not used | Not used | AEK1057 | AEK1057 | Not used | |
| ⚠ | 56 | Fuse (2.5A, FU2, FU3) | Not used | Not used | REK-104 | REK-104 | Not used | |
| | 57 | Caution label | Not used | Not used | Not used | PRW1018 | PRW1018 | |
| NSP | 58 | Caution label (F) | Not used | Not used | Not used | VRW-328 | VRW-328 | |
| | 59 | Caution label (G) | Not used | Not used | Not used | VRW-329 | VRW-329 | |

### ■ Parts List for XR-P760F/KU

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | FM/AM TUNER MODULE | AXQ1012 |
| | 2 | POWER AMP MODULE | AXQ7017 |
| | 3 | AF ASSY | AWZ7886 |
| | 4 | VOL ASSY | AWZ7858 |
| | 5 | SECONDARY ASSY | AWZ7864 |
| NSP | 6 | TX CONNECT ASSY | AWZ8176 |
| | 7 | ..... | |
| | 8 | CD ASSY | AWZ7889 |
| NSP | 9 | SUB TRANS ASSY | AWZ7908 |
| NSP | 10 | HOME SW ASSY | AWZ7917 |
| ⚠ | 11 | POWER TRANSFORMER (T) | ATS7087 |
| ⚠ | 12 | FUSE (6.3A, FU4) | VEK1026 |
| | 13 | 19P F.F.C /30V | ADD7009 |
| | 14 | 22P F.F.C /30V | ADD7016 |
| ⚠ | 15 | AC POWER CORD | PDG1015 |
| | 16 | SUB CHASSIS | ANA7029 |
| NSP | 17 | CHASSIS | ANA7030 |
| | 18 | EJECT LEVER S | ANB7029 |
| | 19 | REAR PANEL | ANC7284 |
| | 20 | FRONT STAY | AND7006 |
| | 21 | REAR STAY | AND7007 |
| | 22 | HOME LOCK STAY | AND7008 |
| | 23 | LINK BRACKET A | ANG7065 |
| | 24 | LINK BRACKET B | ANG7066 |
| | 25 | COVER | AAK7246 |
| | 26 | PCB COVER | AAK7247 |
| | 27 | LEVER SPRING S | ABH7067 |
| | 28 | DISC RACK PLATE | AAK7251 |
| | 29 | BONNET CASE | ANE7107 |
| | 30 | SCREW | BBZ30P080FZK |
| | 31 | SCREW | VPZ30P100FZK |
| | 32 | STRAIN RELIEF | CM-22C |
| NSP | 33 | SPACER | VEC1596 |
| | 34 | RACK SPRING | ABH7057 |
| | 35 | GUIDE SHAFT S | ALA7008 |
| | 36 | SHAFT HOLDER | ANB7021 |
| | 37 | SHAFT HOLDER S | ANB7024 |
| | 38 | ANGLE | ANB7043 |
| | 39 | DISC RACK | ANW7069 |
| | 40 | RACK BASE S | ANW7070 |
| | 41 | DAMPER ASSY | AXA7018 |
| | 42 | SCREW | PBA1085 |
| NSP | 43 | GM MECHA ASSY | AXA7026 |
| NSP | 44 | GM SLOT-IN MECHA ASSY | AXA7027 |
| | 45 | SCREW | IBZ30P080FMC |
| | 46 | SCREW | BBZ40P080FZK |
| | 47 | ..... | |
| | 48 | SIDE ROLLER RUBBER | DEB1043 |
| | 49 | 65 LABEL | ORW1069 |
| NSP | 50 | KUC ASSY | AWZ7909 |






**NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.**

Remarks

arts No.

AK7247
BH7067
AK7251
NE7107
BZ30P080FZK

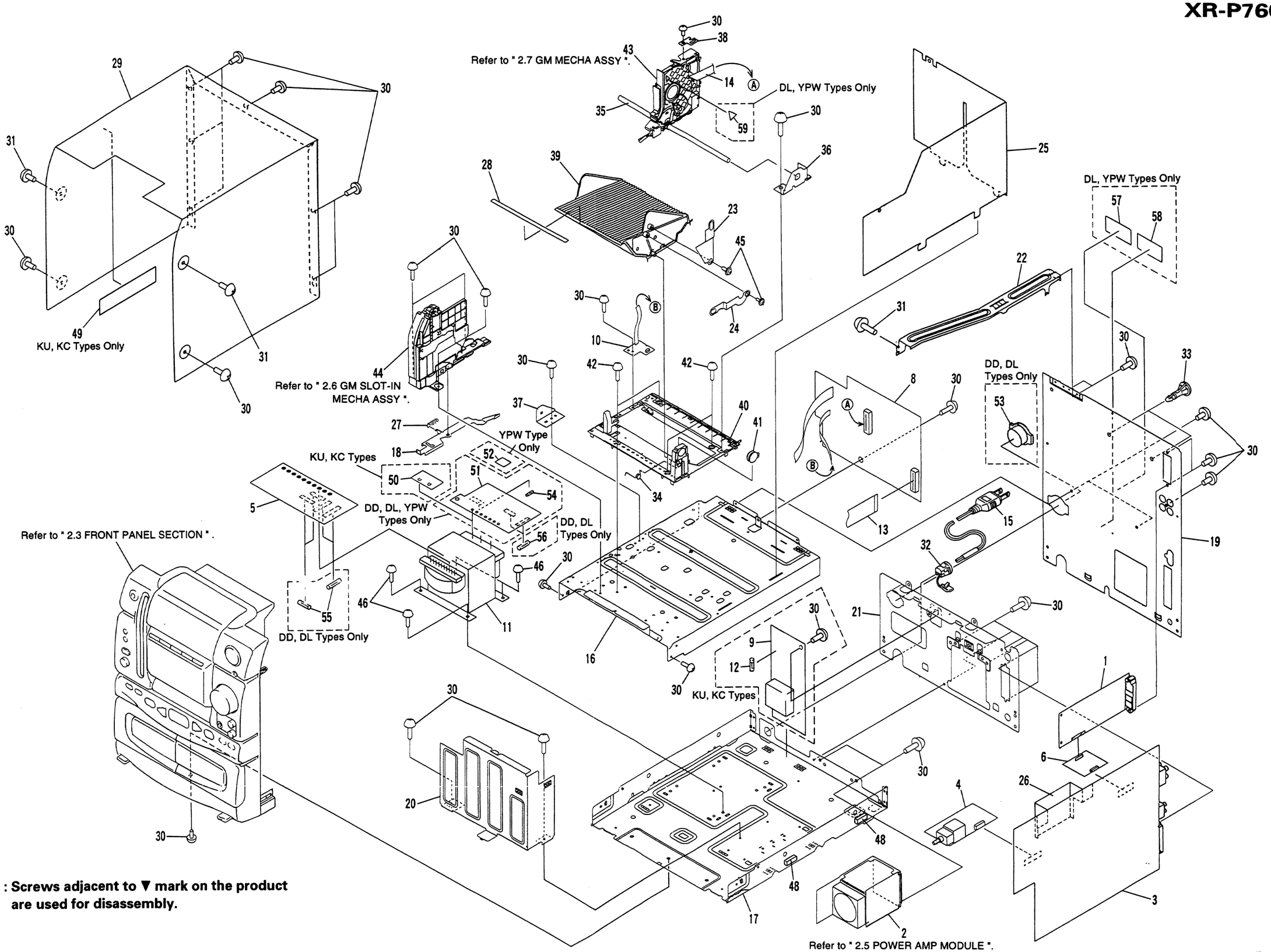
PZ30P100FZK
M-22C
EC1596
BH7057
LA7008

NB7021
NB7024
NB7043
NW7069
NW7070

XA7018
BA1085
XA7026
XA7027
3Z30P080FMC

BZ40P080FZK

EB1043
RW1069
WZ7909


Refer to " 2.7 GM MECHA ASSY ".
DL, YPW Types Only
KU, KC Types Only
Refer to " 2.6 GM SLOT-IN MECHA ASSY ".
YPW Type Only
KU, KC Types
DD, DL, YPW Types Only
DD, DL Types Only
DD, DL Types Only
DL, YPW Types Only
DD, DL Types Only
KU, KC Types
Refer to " 2.3 FRONT PANEL SECTION " .
Refer to " 2.5 POWER AMP MODULE ".

**NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.**

## 2.3 FRONT PANEL SECTION

### ■ Contrast of XR-P760F/KU, KC, DD, DL and YPW

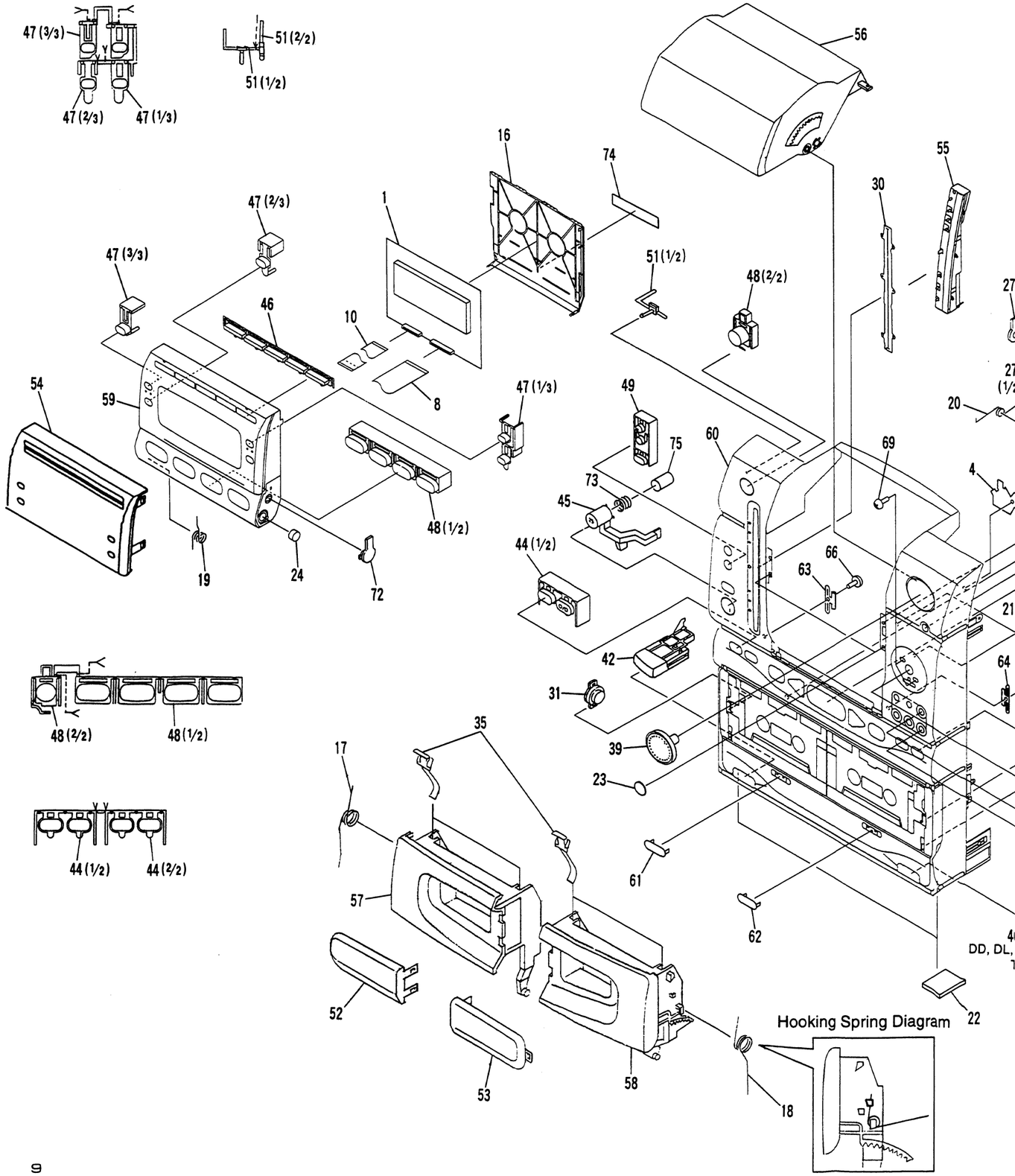
XR-P760F/KU, KC, DD, DL and YPW have the same construction except for the following:

| Mark | No. | Description | Part No. | | | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | KU type | KC type | DD type | DL type | YPW type | |
| | 1 | DISPLAY assy | AWZ7869 | AWZ7869 | AWZ7871 | AWZ7871 | AWZ7871 | |
| | 2 | OPERATION-A assy | AWZ7879 | AWZ7879 | AWZ7881 | AWZ7881 | AWZ7881 | |
| | 60 | Front panel | AMB7289 | AMB7289 | AMB7291 | AMB7291 | AMB7291 | |

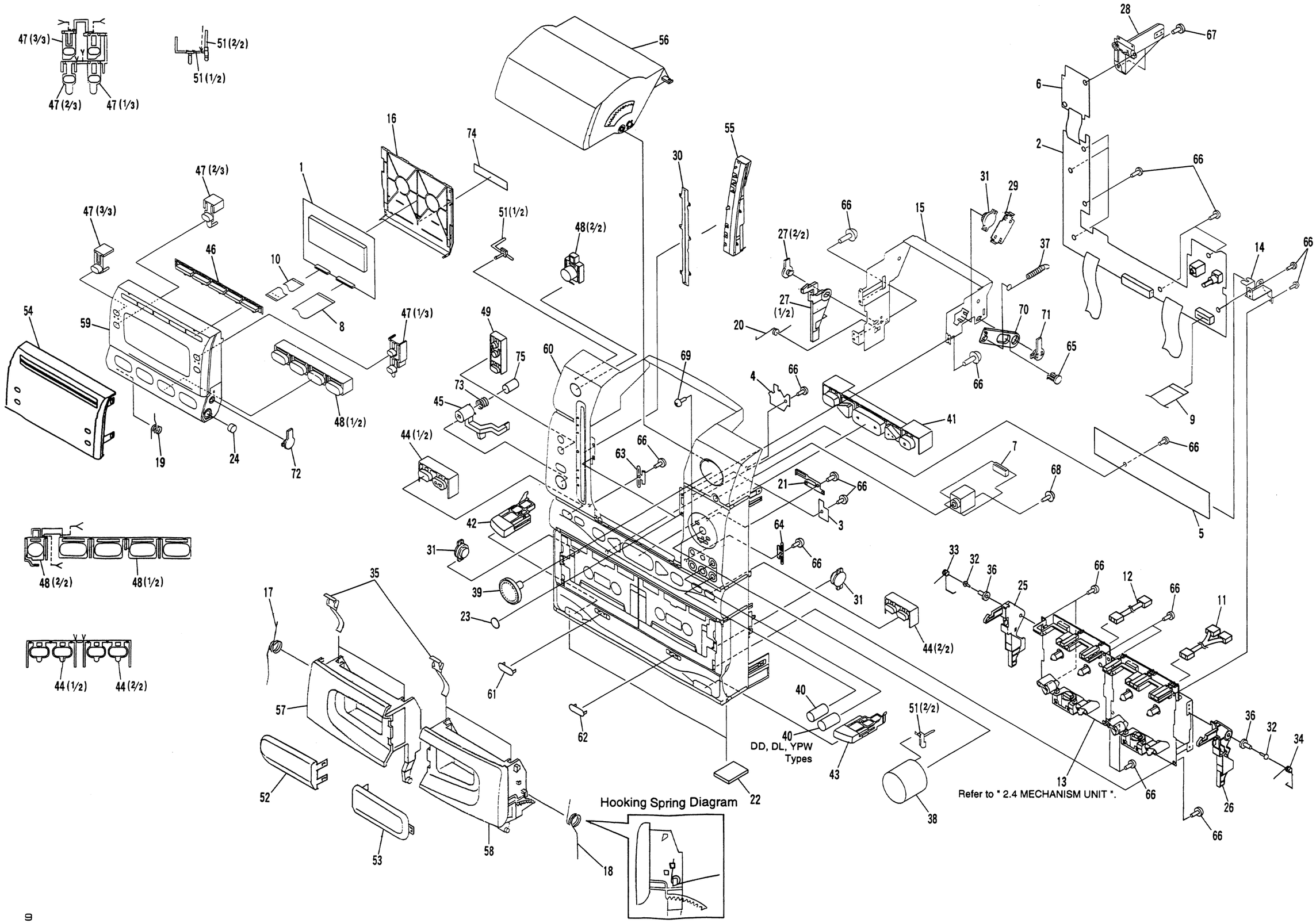
### ■ Parts List for XR-P760F/KU

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | DISPLAY ASSY | AWZ7869 |
| | 2 | OPERATION-A ASSY | AWZ7879 |
| NSP | 3 | DOOR SW ASSY | AWZ7887 |
| | 4 | JOG ASSY | AWZ7888 |
| | 5 | DECK RELAY ASSY | AWZ7902 |
| | 6 | OPERATION-B ASSY | AWZ7911 |
| NSP | 7 | HEADPHONE ASSY | AWZ7913 |
| | 8 | 31P F.F.C /60V | ADD7006 |
| | 9 | 17P F.F.C /30V | ADD7007 |
| | 10 | 27P F.F.C /30V | ADD7008 |
| | 11 | CONNECTOR ASSY 5P | RKP1582 |
| | 12 | CONNECTOR ASSY 3P | RKP1583 |
| | 13 | MECHANISM UNIT | RYM1248 |
| | 14 | EARTH BRACKET | ANG7067 |
| | 15 | SUB PANEL | ANG7069 |
| | 16 | REAR PLATE | AAK7203 |
| | 17 | DOOR SPRING L | ABH7080 |
| | 18 | DOOR SPRING R | ABH7081 |
| | 19 | CD DOOR SPRING | ABH7082 |
| | 20 | EJ ARM SPRING | ABH7083 |
| | 21 | DOOR SWITCH SPRING | ABK7004 |
| | 22 | RUBBER PLATE | AEB1111 |
| | 23 | CUSHION RUBBER | AEB7037 |
| | 24 | DOOR SPACER | AEB7039 |
| | 25 | EJECT ARM L | AMR7020 |
| | 26 | EJECT ARM R | AMR7021 |
| | 27 | LOCK LEVER | AMR7065 |
| | 28 | PCB MOLD | AMR7067 |
| | 29 | MOLD | AMR7088 |
| | 30 | SLOT-IN MECHA COVER | AWL7020 |
| | 31 | DAMPER ASSY | AXA7021 |
| | 32 | SCREW | BSZ20P120FMC |
| | 33 | EJECT SPRING (L) | RBH1411 |
| | 34 | EJECT SPRING (R) | RBH1412 |
| | 35 | SPRING | RBK1004 |
| | 36 | COLLAR | RNK2135 |
| | 37 | SPRING | ABH7088 |
| | 38 | VOLUME KNOB | AAB7039 |
| | 39 | JOG KNOB | AAB7067 |
| | 40 | MIC KNOB | AAB7068 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 41 | BUTTON ASSY A | AAD7220 |
| | 42 | EJECT BUTTON S (L) | AAD7221 |
| | 43 | EJECT BUTTON S (R) | AAD7222 |
| | 44 | BUTTON ASSY B | AAD7225 |
| | 45 | OPEN BUTTON S | AAD7226 |
| | 46 | GENRE BUTTON | AAD7227 |
| | 47 | TIMER BUTTON | AAD7228 |
| | 48 | FUNCTION BUTTON S | AAD7234 |
| | 49 | P. BASS BUTTON | AAD7230 |
| | 50 | ..... | |
| | 51 | STA. LENS | AAK7099 |
| | 52 | DECK WINDOW L | AAK7197 |
| | 53 | DECK WINDOW R | AAK7198 |
| | 54 | AMP WINDOW | AAK7215 |
| | 55 | STAR LIGHT LENS | AAK7200 |
| | 56 | FOOD | AAN7089 |
| | 57 | CASSETTE DOOR L | AAN7097 |
| | 58 | CASSETTE DOOR R | AAN7098 |
| | 59 | DOOR PANEL | AAN7099 |
| | 60 | FRONT PANEL | AMB7289 |
| | 61 | MOLD L | AMR7077 |
| | 62 | MOLD R | AMR7078 |
| | 63 | SHAFT HOLDER L | AMR7079 |
| | 64 | SHAFT HOLDER R | AMR7080 |
| | 65 | LOCK MOLD | AMR7091 |
| | 66 | SCREW | BPZ30P080FMC |
| | 67 | SCREW | VPZ30P100FZK |
| | 68 | SCREW | ABA1005 |
| | 69 | SCREW | BBZ30P080FZK |
| | 70 | LINK MOLD | AMR7089 |
| | 71 | SHAFT MOLD | AMR7090 |
| | 72 | DOOR COVER | AMR7076 |
| | 73 | OPEN BUTTON SPRING | ABH7109 |
| | 74 | CAUTION LABEL | ARW7009 |
| | 75 | SPRING SPACER | AEB7048 |



| marks | No. |
|---|---|
| | 220 |
| | 221 |
| | 222 |
| | 225 |
| | 226 |
| | 227 |
| | 228 |
| | 234 |
| | 230 |
| | 099 |
| | 197 |
| | 198 |
| | 215 |
| | 200 |
| | 089 |
| | 097 |
| | 098 |
| | 099 |
| | 289 |
| | 077 |
| | 078 |
| | 079 |
| | 080 |
| | 091 |
| | )P080FMC |
| | )P100FZK |
| | )05 |
| | )P080FZK |
| | 089 |
| | 090 |
| | 076 |
| | 109 |
| | 009 |
| | )48 |



## 2.4 MECHANISM UNIT

### ■ Mechanism unit I and II (1/2)

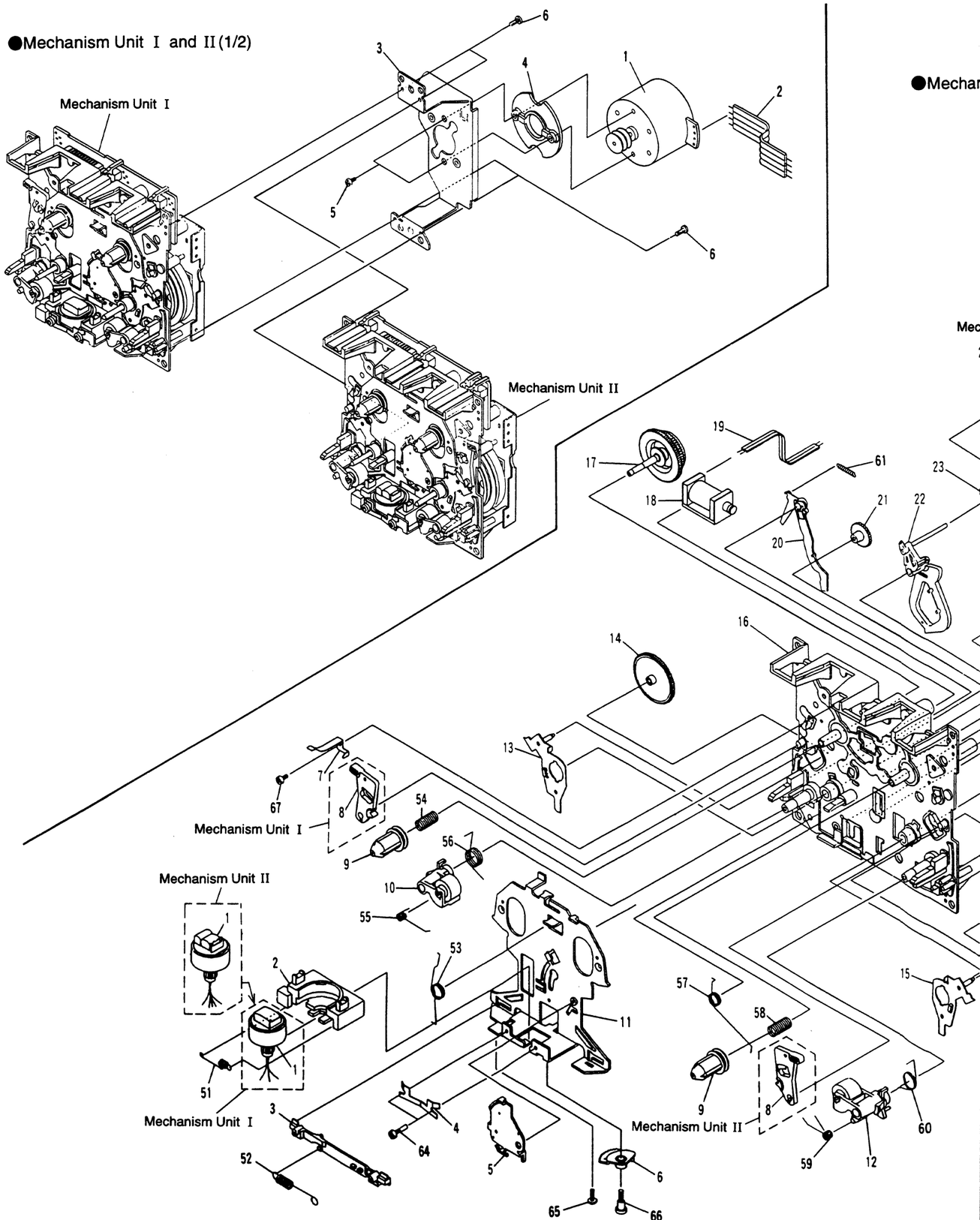
| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | ASSY MOTOR | RXM1080 |
| NSP | 2 | JUMPER WIRE | RDD1012 |
| | 3 | BRACKET MOTOR | RNE1830 |
| | 4 | SPACER | RNK1822 |
| | 5 | SCREW | RBA1100 |
| | 6 | SCREW | PCZ20P040FMC |

### ■ Mechanism unit I and II (2/2)

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | ASSY HOLDER HEAD (*1) | RXA1400 |
| | 1 | ASSY HOLDER HEAD (*2) | RXA1664 |
| | 2 | FRAME HEAD | RNK1715 |
| | 3 | LEVER HEAD | RNK1716 |
| | 4 | SPRING AZIMUTH | RBK1006 |
| | 5 | ASSY ARM ASSIST | RXA1401 |
| | 6 | GEAR ARM HEAD | RNK1717 |
| | 7 | SPRING CASSETTE | RBK1039 |
| | 8 | EJECT LOCK | RNK1718 |
| | 9 | CAP REEL | RNK1719 |
| | 10 | ASSY PINCH ARM L | RXA1403 |
| | 11 | CHASSIS HEAD | RNE1437 |
| | 12 | ASSY PINCH ARM R | RXA1404 |
| | 13 | ARM PLAY L | RNK1866 |
| | 14 | GEAR PLAY | RNK1867 |
| | 15 | ARM PLAY R | RNK1868 |
| | 16 | CHASSIS OS | RXA1411 |
| | 17 | ASSY SUB REEL L | RXA1407 |
| | 18 | SOLENOID | RXP1020 |
| | 19 | WIRE | RDC1006 |
| | 20 | ARM RVS | RNK1721 |
| | 21 | GEAR FF | RNK1723 |
| | 22 | ASSY ARM FR | RXA1412 |
| | 23 | ASSY PULLEY FR | RXA1413 |
| | 24 | BELT FR | REB1292 |
| | 25 | METAL | RNG1048 |
| | 26 | ASSY FLYWHEEL L | RXA1690 |
| | 27 | METAL | RNG1005 |
| | 28 | ARM BRAKE | RNK1724 |
| | 29 | ASSY SUB REEL R | RXA1408 |
| | 30 | ARM TRIGER | RNK1722 |
| | 31 | GEAR CAM | RNK1725 |
| | 32 | METAL | RNG1049 |
| | 33 | ASSY FLYWHEEL R | RXA1691 |
| | 34 | METAL | RNG1004 |
| | 35 | ..... | |
| | 36 | ..... | |
| | 37 | P. C. BOARD | RNP1610 |
| | 38 | SWITCH MODE | RSN1020 |
| | 39 | SWITCH (LEAF) | RSN1019 |
| | 40 | HALL IC | DN6851A |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 41 | BRACKET FW (*1) | RNE1854 |
| | 41 | BRACKET FW (*2) | RNE1438 |
| | 42 | PULLEY (*1 only) | RNK2132 |
| | 43 | ..... | |
| | 44 | BELT FW (*1 only) | REB1291 |
| | 45 | BELT MAIN (* 1) | REB1290 |
| | 45 | BELT MAIN (* 2) | REB1289 |
| | 46 | P. C. BOARD | RNP1348 |
| | 47 | HOUSING (*1) | RKP1396 |
| | 47 | HOUSING (*2) | RKP1397 |
| | 48 | CONNECTOR (*1) | RKP1713 |
| | 48 | CONNECTOR (*2) | RKP1714 |
| | 49 | ASSY HOLDER (*1 only) | RXA1689 |
| | 50 | ..... | |
| | 51 | SPRING | RBH1282 |
| | 52 | SPRING | RBH1283 |
| | 53 | SPRING | RBH1284 |
| | 54 | SPRING | RBH1286 |
| | 55 | SPRING | RBH1288 |
| | 56 | SPRING | RBH1291 |
| | 57 | SPRING | RBH1285 |
| | 58 | SPRING | RBH1287 |
| | 59 | SPRING | RBH1289 |
| | 60 | SPRING | RBH1290 |
| | 61 | SPRING | RBH1292 |
| | 62 | FWP SP (SPRING) | RBH1061 |
| | 63 | SPRING | RBH1325 |
| | 64 | SCREW (For AZIMUTH) | RBA1023 |
| | 65 | SCREW | RBA1027 |
| | 66 | SCREW | RBA1030 |
| | 67 | SCREW | PCZ20P040FMC |
| | 68 | SCREW | RBA1093 |
| | 69 | SCREW | RBA1094 |
| | 70 | WASHER | RBF1046 |
| | 71 | WASHER | WA26D047D013 |
| | 72 | WASHER (*1 only) | WT13D030D025 |
| | 73 | SCREW (*1 only) | RBA1118 |

*Note) *1: Mechanism Unit I*
**2: Mechanism Unit II*



arts No.

NE1854
NE1438
NK2132

EB1291
EB1290
EB1289

NP1348
KP1396
KP1397
KP1713
KP1714
XA1689

BH1282
BH1283
BH1284
BH1286
BH1288

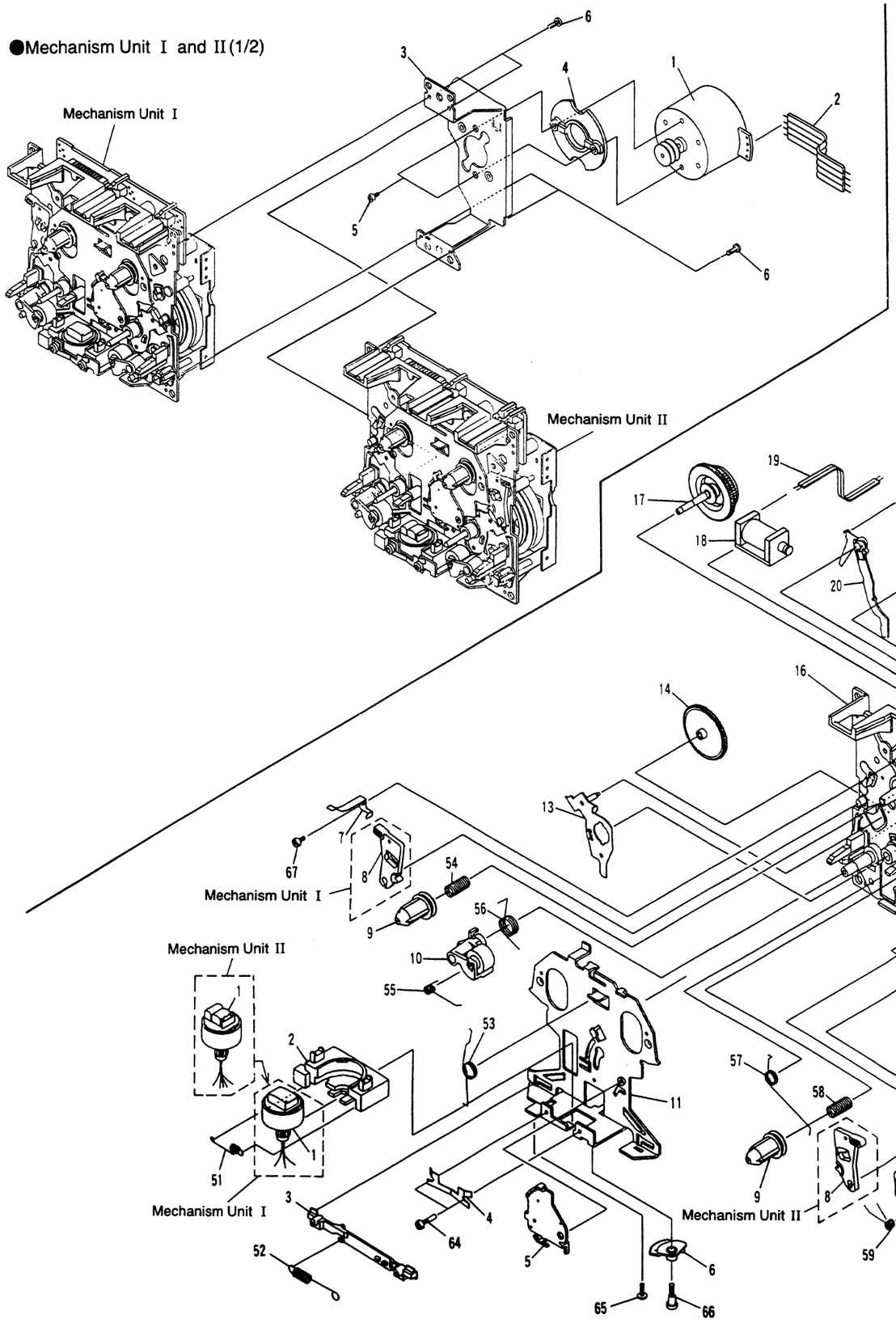
BH1291
BH1285
BH1287
BH1289
BH1290

BH1292
BH1061
BH1325
BA1023
BA1027

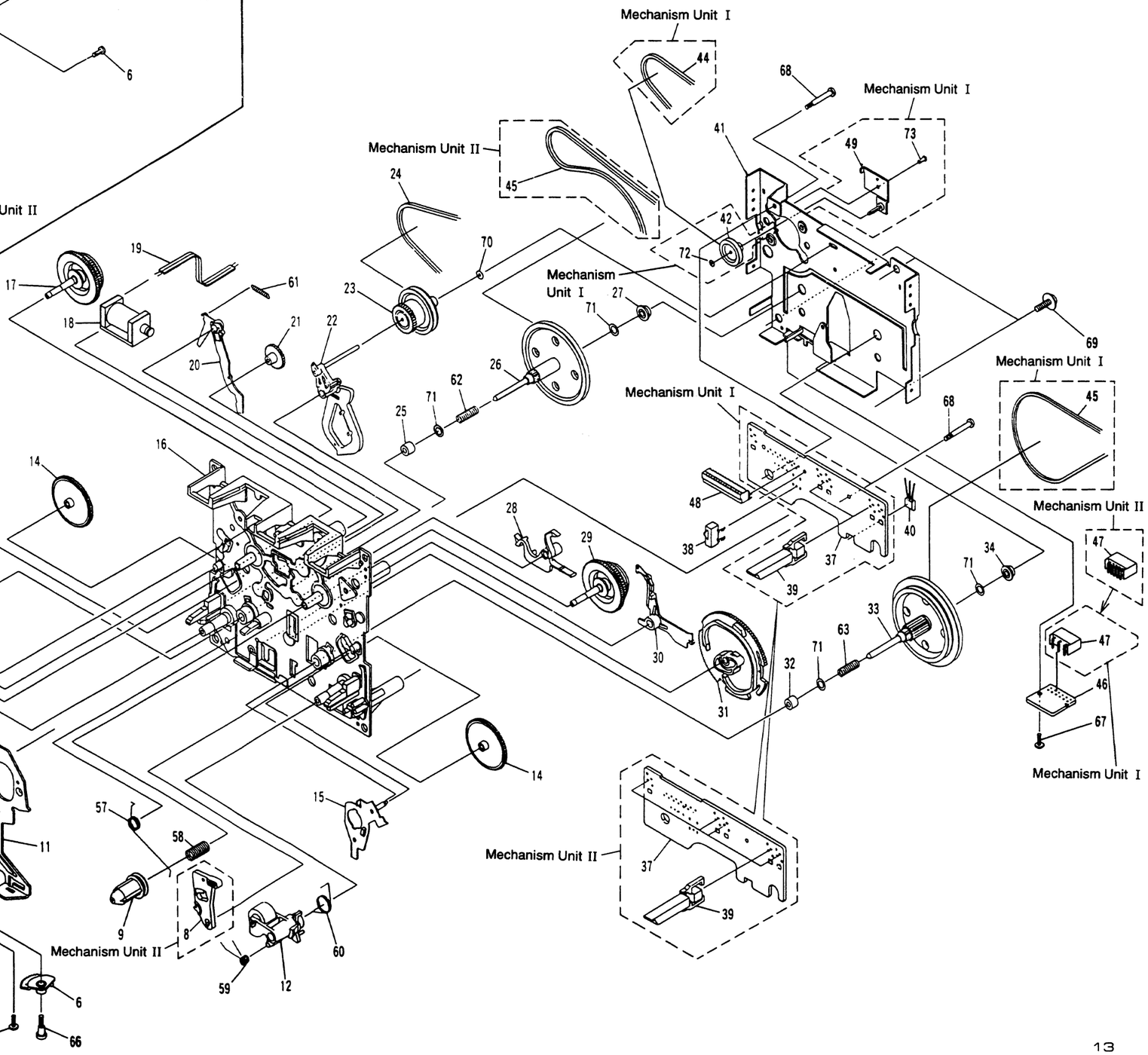
BA1030
CZ20P040FMC
BA1093
BA1094
BF1046

'A26D047D013
'T13D030D025
BA1118

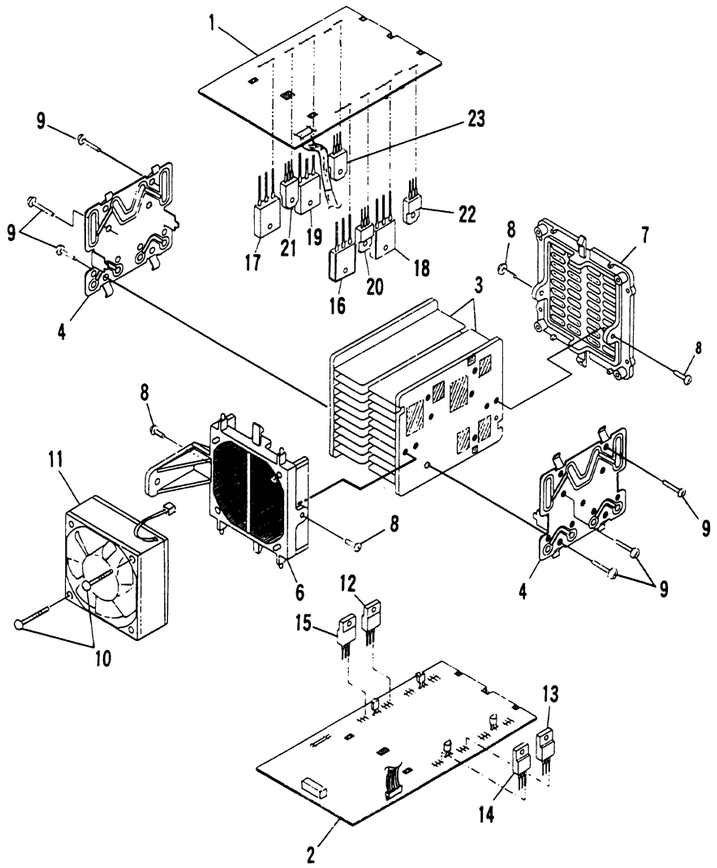
●Mechanism Unit I and II (1/2)




●Mechanism Unit I and II (2/2)



## 2.5 POWER AMP MODULE



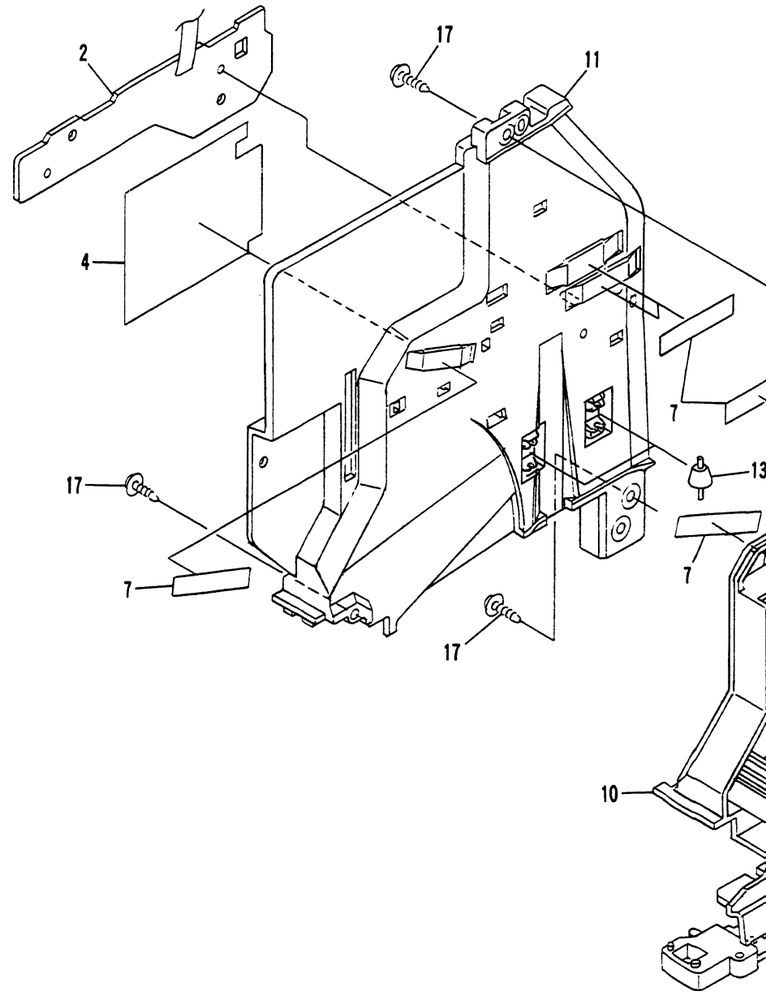

*Note: Ensure that silicon grease does not adhere to the MOLD A (No. 6) and MOLD B (No. 7).*

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 1 | FRONT 100W ASSY | AWZ7518 |
| | 2 | REGULATOR ASSY | AWZ7520 |
| | 3 | HEAT SINK (AL) | ANH7007 |
| | 4 | BRACKET | ANG1868 |
| | 5 | ..... | |
| | 6 | MOLD A | AMR2594 |
| | 7 | MOLD B | AMR2595 |
| | 8 | SCREW (3×10) | ABA1021 |
| | 9 | SCREW | BBZ30P140FZK |
| | 10 | SCREW | BPZ30P350FZK |
| | 11 | FAN MOTOR | AXM7003 |
| | 12 | REGULATOR IC (IC7401) | NJM7812FAS |
| | 13 | REGULATOR IC (IC7402) | NJM7912FA |
| | 14 | REGULATOR IC (IC7403) | NJM7812FAS |
| | 15 | REGULATOR IC (IC7404) | NJM7805FAS |
| ⚠ | 16 | TRANSISTOR (Q7511) | 2SA1264N |
| ⚠ | 17 | TRANSISTOR (Q7512) | 2SA1264N |
| ⚠ | 18 | TRANSISTOR (Q7513) | 2SC3181N |
| ⚠ | 19 | TRANSISTOR (Q7514) | 2SC3181N |
| ⚠ | 20 | TRANSISTOR (Q7503) | 2SC4793 |
| | 21 | TRANSISTOR (Q7504) | 2SC4793 |
| | 22 | TRANSISTOR (Q7509) | 2SA1837 |
| | 23 | TRANSISTOR (Q7510) | 2SA1837 |



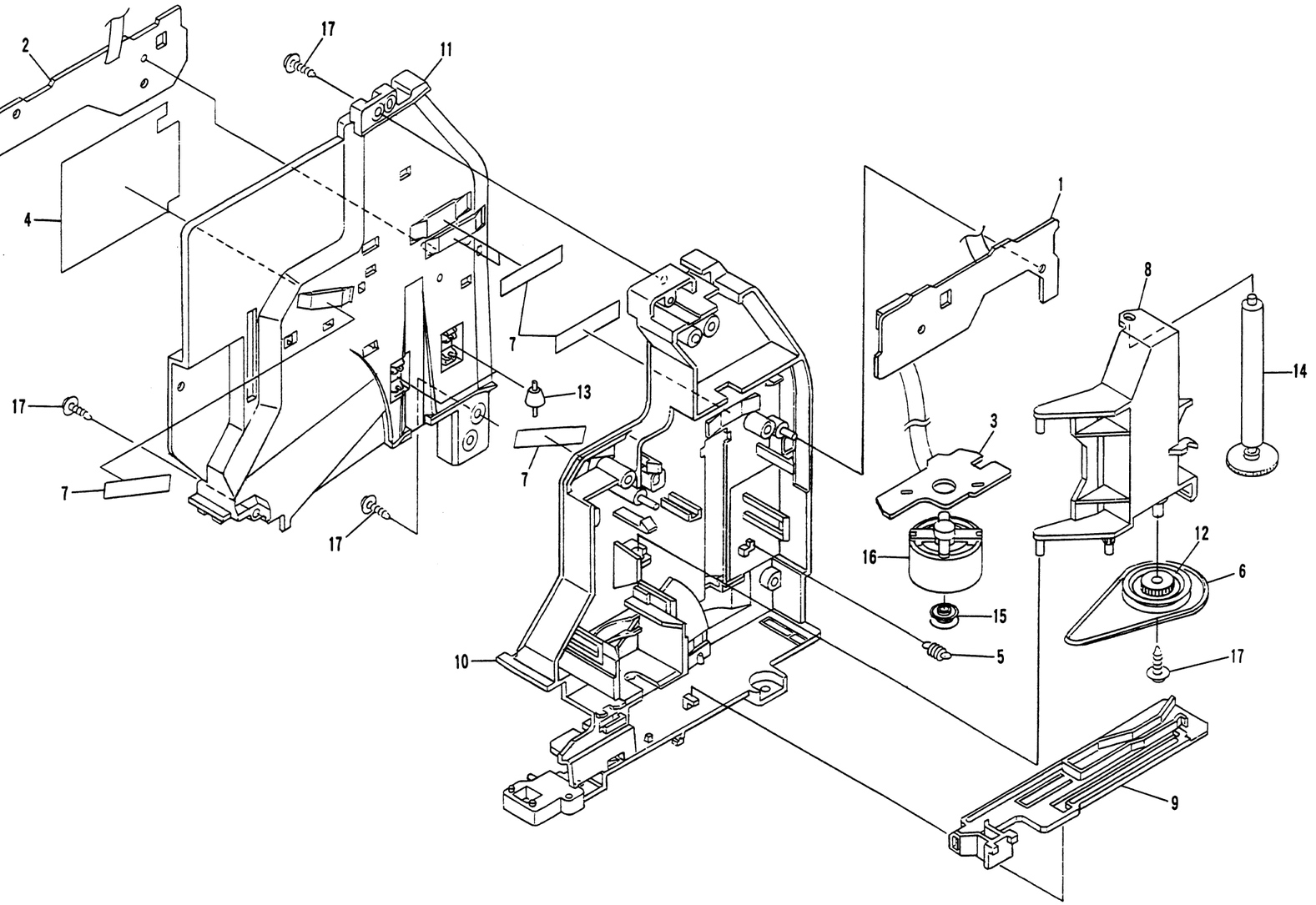
## 2.6 GM SLOT-IN MECHA ASSY

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| NSP | 1 | SENSOR BOARD ASSY | AWZ7839 |
| NSP | 2 | LED BOARD ASSY | AWZ7840 |
| NSP | 3 | MOTOR BOARD ASSY | AWZ7841 |
| | 4 | BLIND | AAK7219 |
| | 5 | ROLLER SPRING | ABH7063 |
| | 6 | BELT | AEB7033 |
| | 7 | ECSAINE | AED7004 |
| | 8 | GEAR HOLDER | ANW7047 |
| | 9 | SLIDE PLATE | ANW7048 |
| | 10 | CASE (M) | ANW7049 |
| | 11 | CASE (S) | ANW7077 |
| | 12 | GEAR PULLEY A | ANW7066 |
| | 13 | GUIDE ROLLER | ANW7076 |
| | 14 | ROLLER ASSY | AXA7029 |
| | 15 | MOTOR PULLEY | PNW1634 |
| | 16 | DC MOTOR /0.75W | PXM1010 |
| | 17 | SCREW | IPZ20P080FMC |



## 2.6 GM SLOT-IN MECHA ASSY

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| NSP | 1 | SENSOR BOARD ASSY | AWZ7839 |
| NSP | 2 | LED BOARD ASSY | AWZ7840 |
| NSP | 3 | MOTOR BOARD ASSY | AWZ7841 |
| | 4 | BLIND | AAK7219 |
| | 5 | ROLLER SPRING | ABH7063 |
| | 6 | BELT | AEB7033 |
| | 7 | ECSAINE | AED7004 |
| | 8 | GEAR HOLDER | ANW7047 |
| | 9 | SLIDE PLATE | ANW7048 |
| | 10 | CASE (M) | ANW7049 |
| | 11 | CASE (S) | ANW7077 |
| | 12 | GEAR PULLEY A | ANW7066 |
| | 13 | GUIDE ROLLER | ANW7076 |
| | 14 | ROLLER ASSY | AXA7029 |
| | 15 | MOTOR PULLEY | PNW1634 |
| | 16 | DC MOTOR /0.75W | PXM1010 |
| | 17 | SCREW | IPZ20P080FMC |




No.

12FA
12FAS
05FAS

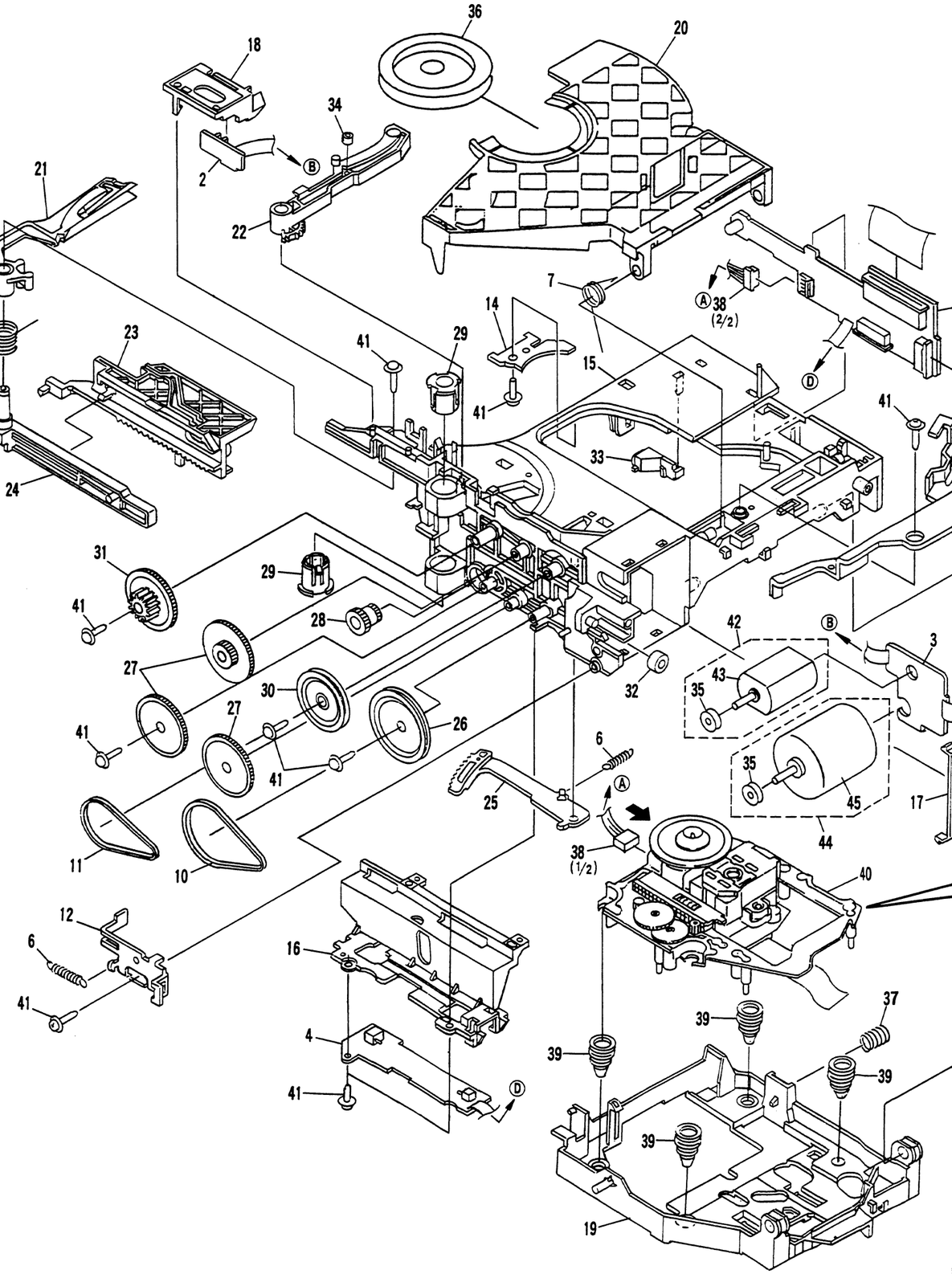
34N
34N
31N
31N
93

93
37
37

## 2.7 GM MECHA ASSY

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| NSP | 1 | MECHA PCB ASSY | AWZ7835 |
| NSP | 2 | SENSOR PCB ASSY | AWZ7836 |
| NSP | 3 | MOTOR PCB ASSY | AWZ7837 |
| NSP | 4 | SW PCB ASSY | AWZ7838 |
| | 5 | ARM A SPRING | ABH7050 |
| | 6 | GEAR PLATE SPRING | ABH7051 |
| | 7 | CLAMP SPRING | ABH7107 |
| | 8 | LOCK LEVER SPRING | ABH7106 |
| | 9 | ..... | |
| | 10 | LOADING BELT | AEB7029 |
| | 11 | BELT | AEB7030 |
| NSP | 12 | LOCK ANGLE | ANB7027 |
| NSP | 13 | LOCK LEVER | ANB7038 |
| NSP | 14 | SERVO STOPPERS | ANB7047 |
| | 15 | LOADING BASE | ANW7051 |
| | 16 | CAM COVER | ANW7052 |
| | 17 | MOTOR HOLDER | ANW7053 |
| | 18 | SENSOR HOLDER | ANW7054 |
| | 19 | FLOAT BASE | ANW7055 |
| | 20 | CLAMPER HOLDER | ANW7056 |
| | 21 | ARM (A) | ANW7057 |
| | 22 | ARM (B) | ANW7058 |
| | 23 | DRIVE PLATE | ANW7059 |
| | 24 | ARM PLATE | ANW7060 |
| | 25 | GEAR PLATE | ANW7061 |
| | 26 | GEAR PULLEY (B) | ANW7062 |
| | 27 | GEAR A | ANW7063 |
| | 28 | DRIVE GEAR | ANW7064 |
| | 29 | BEARING | ANW7065 |
| | 30 | GEAR PULLEY A | ANW7066 |
| | 31 | SELECT GEAR | ANW7067 |
| | 32 | ROLLER | ANW7068 |
| | 33 | LED LENS | ANW7072 |
| | 34 | ROLLER B | ANW7075 |
| | 35 | MOTOR PULLEY | PNW1634 |
| | 36 | CLAMPER | PNW2569 |
| | 37 | FLOAT SPRING | ABH7049 |
| | 38 | CONNECTOR ASSY (4P) | ADE7006 |
| | 39 | FLOAT RUBBER | AEB7028 |
| NSP | 40 | SERVO MECHANISM ASSY GM | AXA7028 |
| | 41 | SCREW | IPZ20P080FMC |
| | 42 | MOTOR ASSY | AEA7005 |
| NSP | 43 | MOTOR | PXM1002 |
| | 44 | MOTOR ASSY | AEA7006 |
| | 45 | LOADING MOTOR | VXM1034 |
| | 46 | GEAR 1 | PNW2052 |
| | 47 | GEAR 2 | PNW2053 |
| | 48 | GEAR 3 | PNW2054 |
| | 49 | CARRIAGE BASE | PNW2445 |
| | 50 | PICKUP ASSY | AEA7004 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | 51 | D.C. MOTOR ASSY | PEA1235 |
| | 52 | CARRIAGE DC MOTOR ASSY | PEA1246 |
| | 53 | PINION GEAR | PNW2055 |
| NSP | 54 | CARRIAGE DC MOTOR/0.3W | PXM1027 |
| | 55 | DISC TABLE ASSY | PEA1314 |
| | 56 | MECHANISM BOARD ASSY | PWX1192 |
| | 57 | GUIDE BAR | PLA1094 |
| | 58 | ..... | |
| | 59 | SCREW | JFZ17P025FZK |
| | 60 | SCREW | JFZ20P040FMC |
| | 61 | WASHER | WT12D032D025 |
| | 62 | CLAMP MAGNET | PMF1014 |
| | 63 | YOKE M | PNB1312 |
| NSP | 64 | DISC TABLE | PNW2410 |
| NSP | 65 | FLOAT ANGLE | ANB7020 |
| | 66 | GEAR STOPPER | PNB1303 |
| | 67 | SCREW | BPZ20P060FMC |
| | 68 | SCREW | BPZ26P100FMC |
| | 69 | ..... | |
| | 70 | FROIL | GYA1001 |
| | 71 | HA NARL | GEM1016 |



**Parts No.**

PEA1235
PEA1246
PNW2055
PXM1027
PEA1314

PWX1192
PLA1094

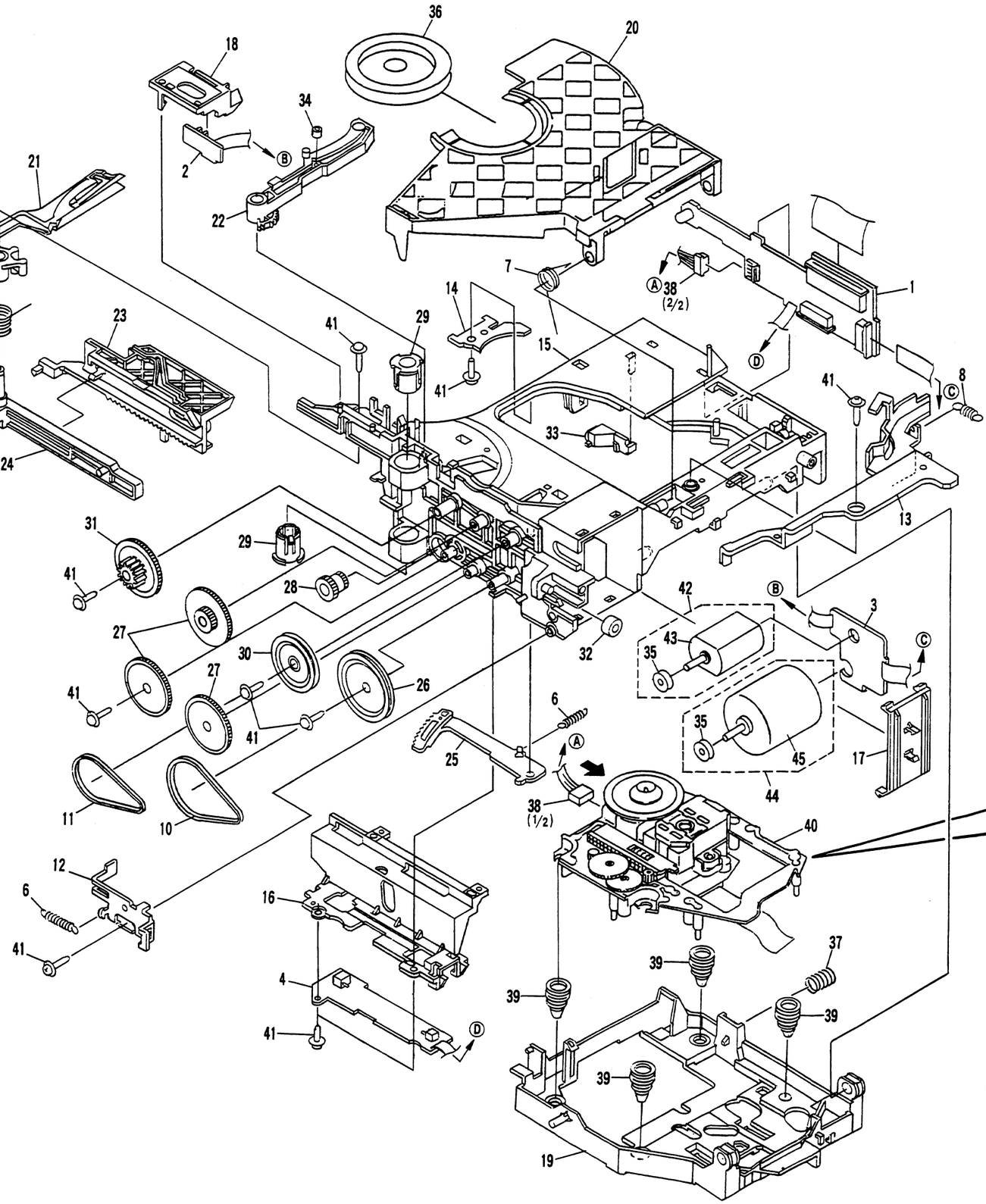
JFZ17P025FZK
JFZ20P040FMC

WT12D032D025
PMF1014
PNB1312
PNW2410
ANB7020

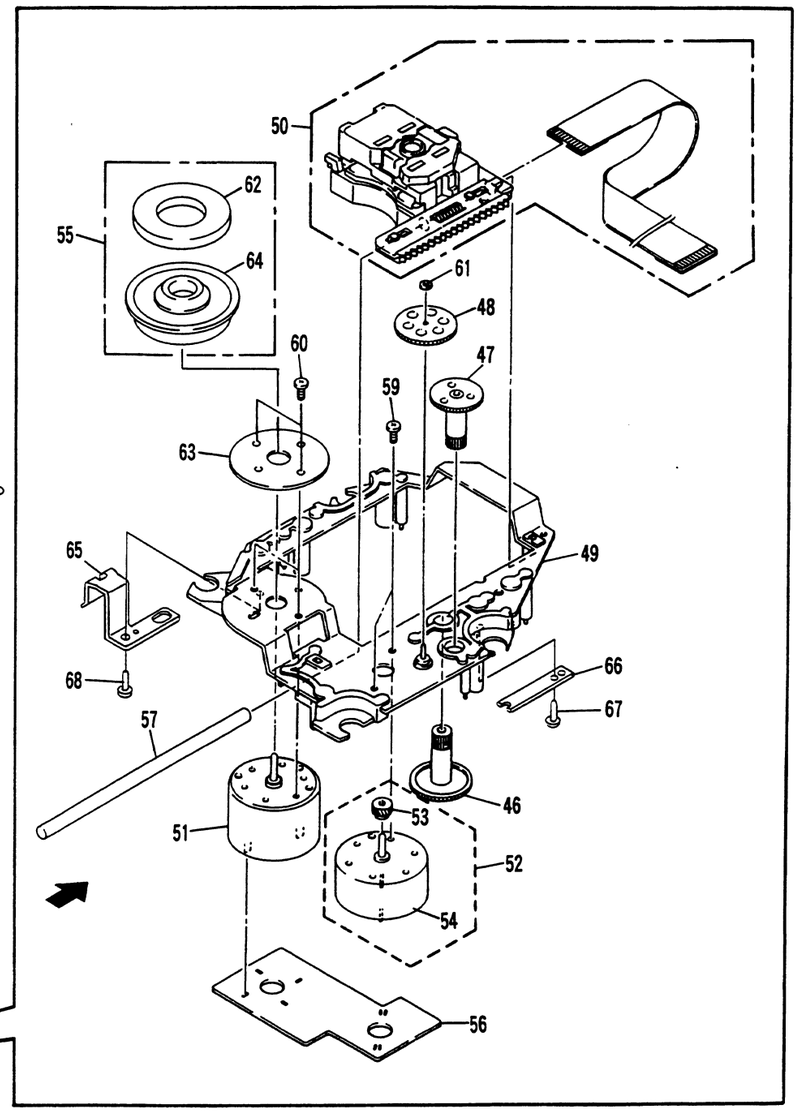
PNB1303
BPZ20P060FMC
BPZ26P100FMC

GYA1001

GEM1016




Servo Mechanism Assy GM

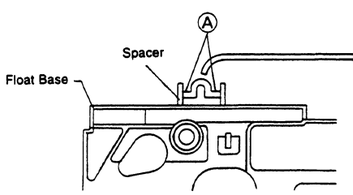



● How to install the disc table

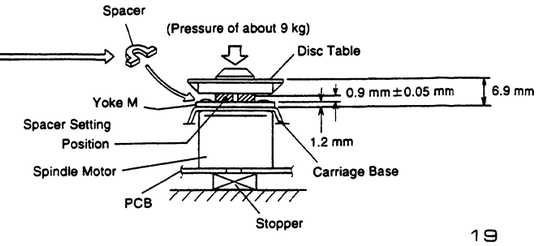
1 Use nipper or other tool to cut the two sections marked Ⓐ figure 1.
Then remove the spacer.

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

1




2



# 3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

## 3.1 OVERALL SCHEMATIC DIAGRAM

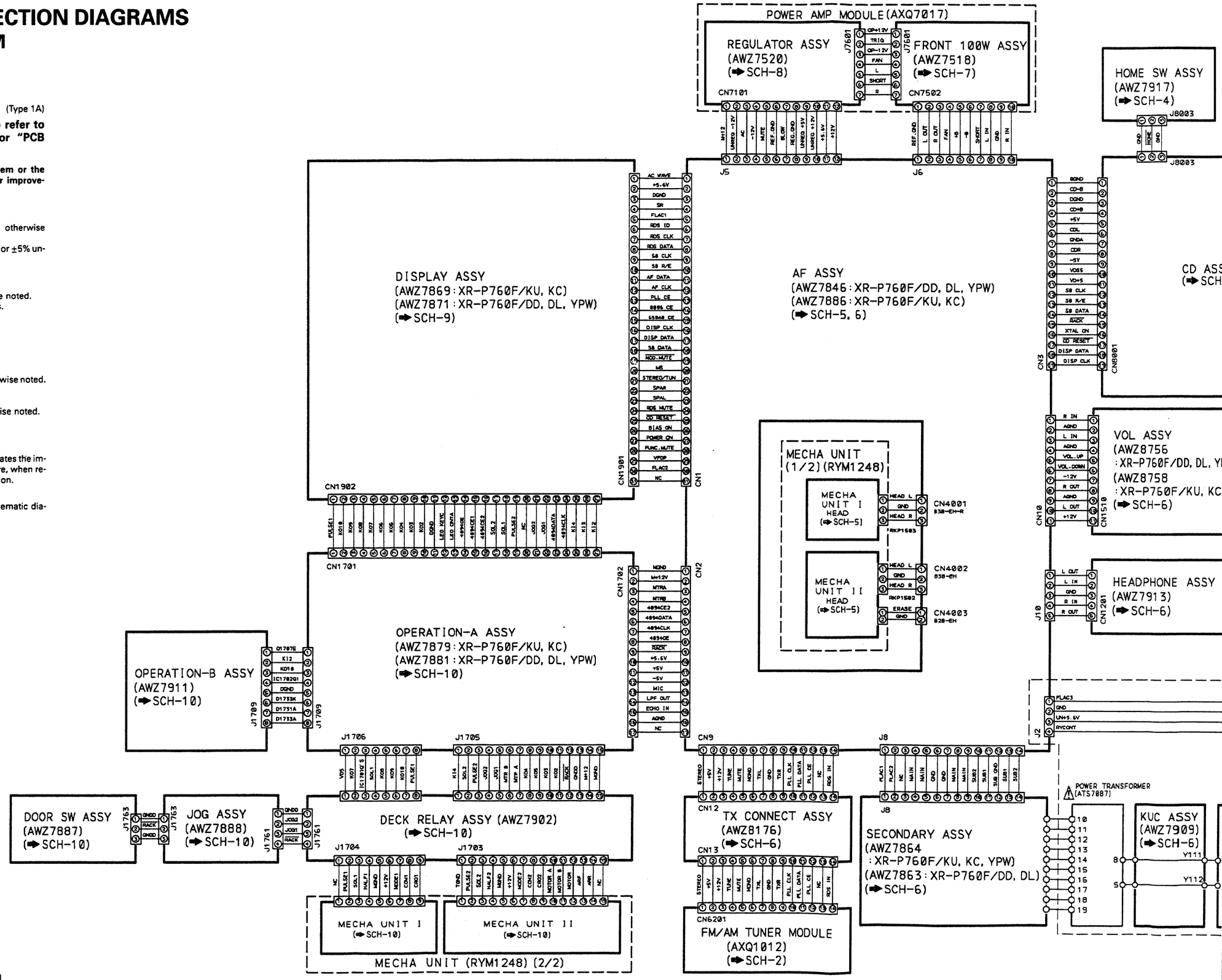
**NOTE FOR SCHEMATIC DIAGRAMS** (Type 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or µF unless otherwise noted.
   Ratings: capacitor (µF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or µH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⓪ : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

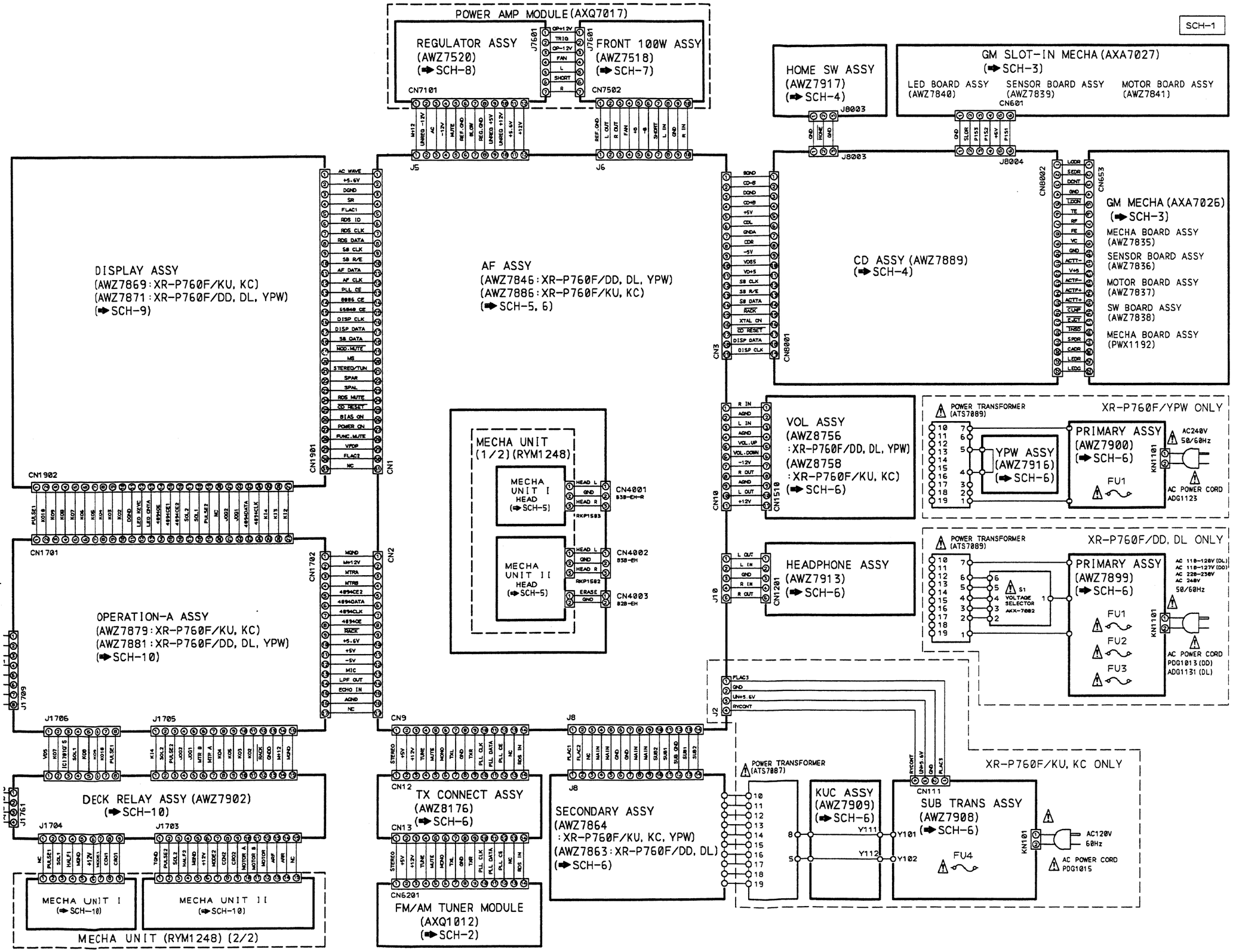
DISPLAY ASSY
S1901: STATION MEMORY
S1902: TITLE INPUT
S1903: 21–25
S1904: 16–20
S1905: 11–15
S1906: 6–10
S1907: 1–5
S1908: TIMER REC/WAKE–UP
S1909: DISPLAY/CLOCK ADJ
S1910: TAPE Ⅰ/Ⅱ
S1911: CD
S1912: MD/CD Ⅱ
S1913: FM/AM

OPERATION–A ASSY
S1703: STOP
S1704: ▶▶+
S1705: –◀◀
S1706: BEST
S1708: SLOT ⏏ EJECT
S1710: DOLBY NR ON/OFF
S1711: FREQ/STATION
S1712: ◀ START ▶
S1714: REC STOP
S1715: ASES/COPY
S1716: SFC/KARAOKE
S1717: P.BASS (DEMO)

OPERATION–B ASSY
S1709: POWER STANDBY/ON




**SCH–1** OVERALL SCHEMATIC DIAGRAM

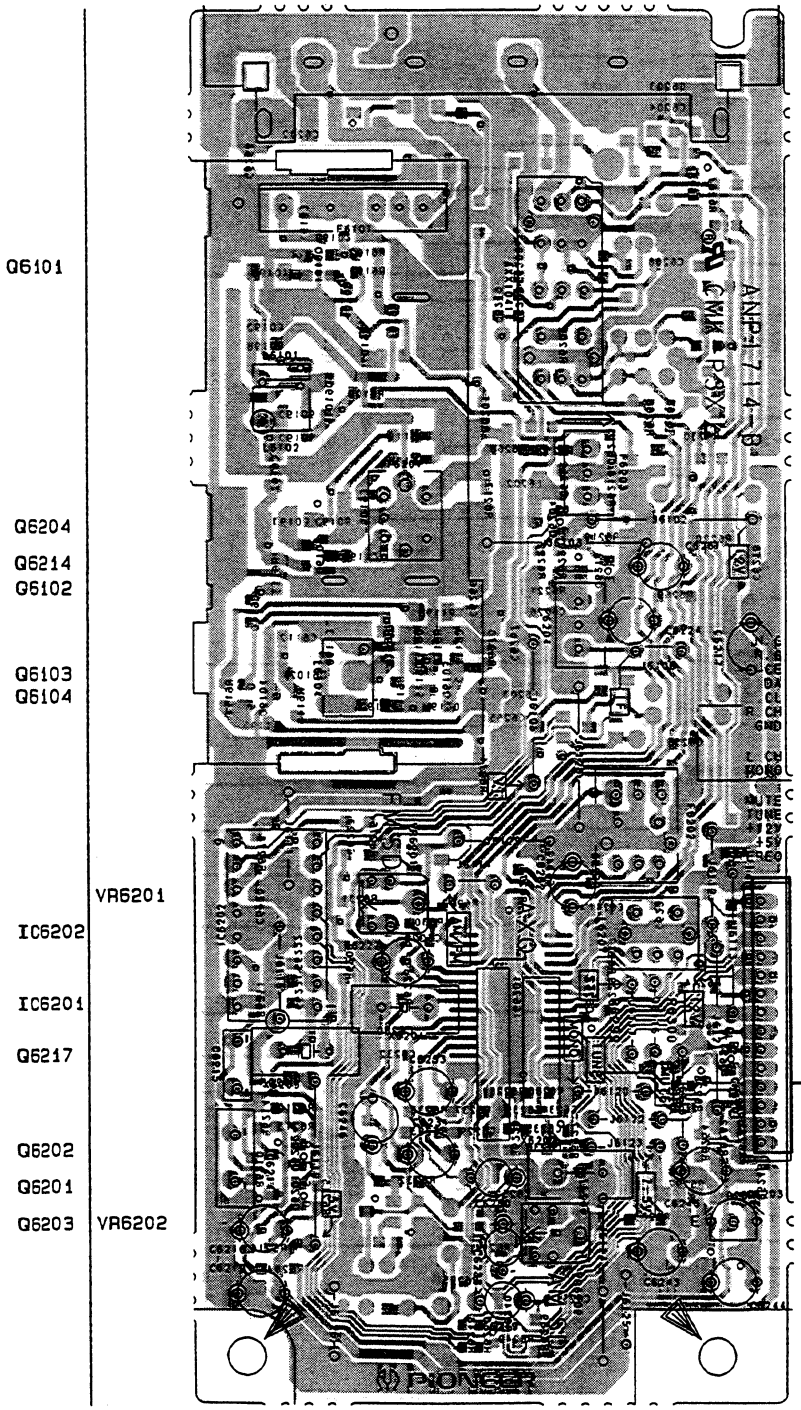



OVERALL SCHEMATIC DIAGRAM

**SCH-1**

## 3.2 FM/AM TUNER MODULE

FM/AM TUNER MODULE




● This diagram is viewed from the mounted parts side.

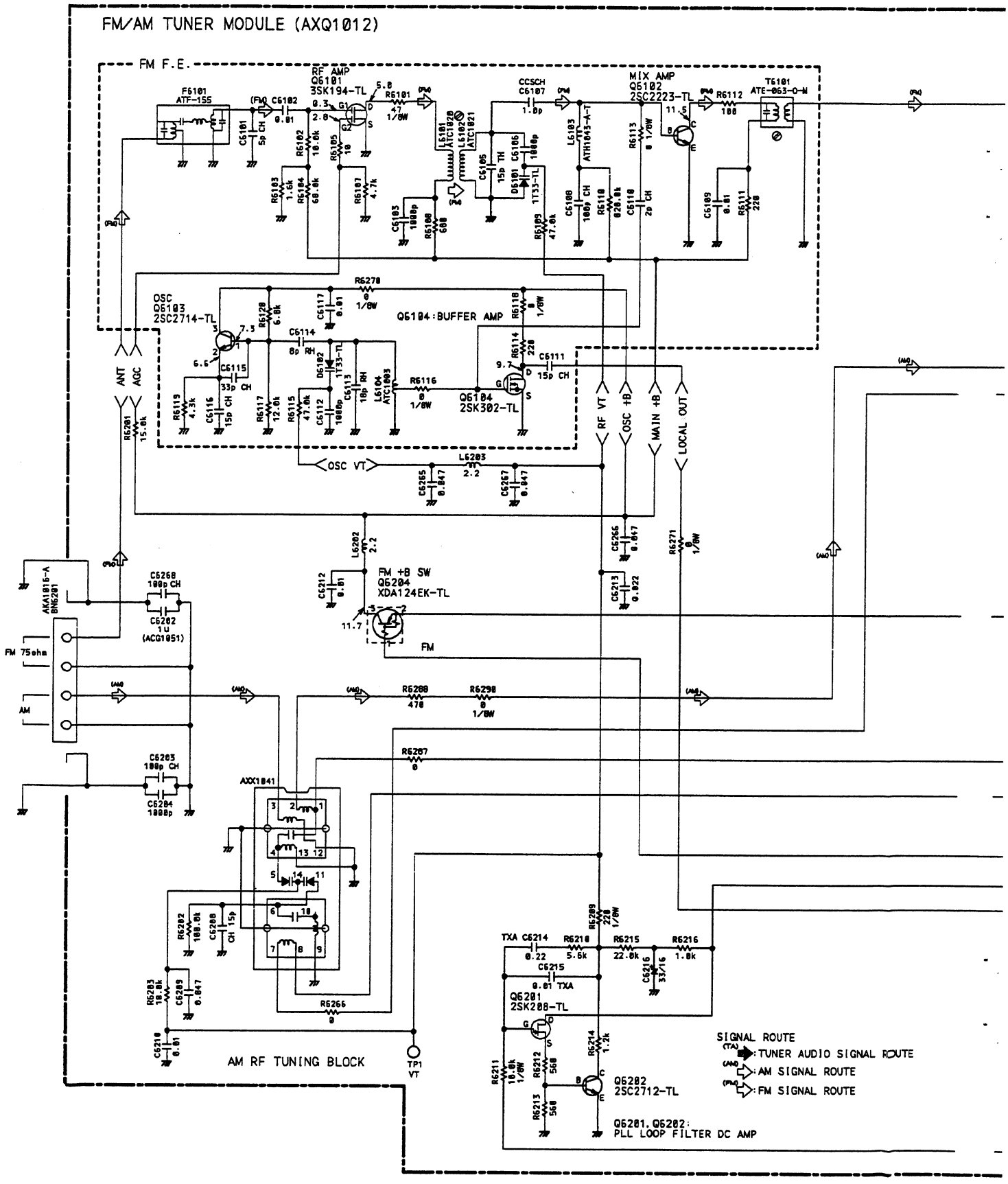
NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|---|---|---|
| Q504 E Q504 | Q504 Q504 | Transistor |
| D203 D203 | D203 | Diode |
| C513 C513 | C513 | Capacitor (Polarized) |

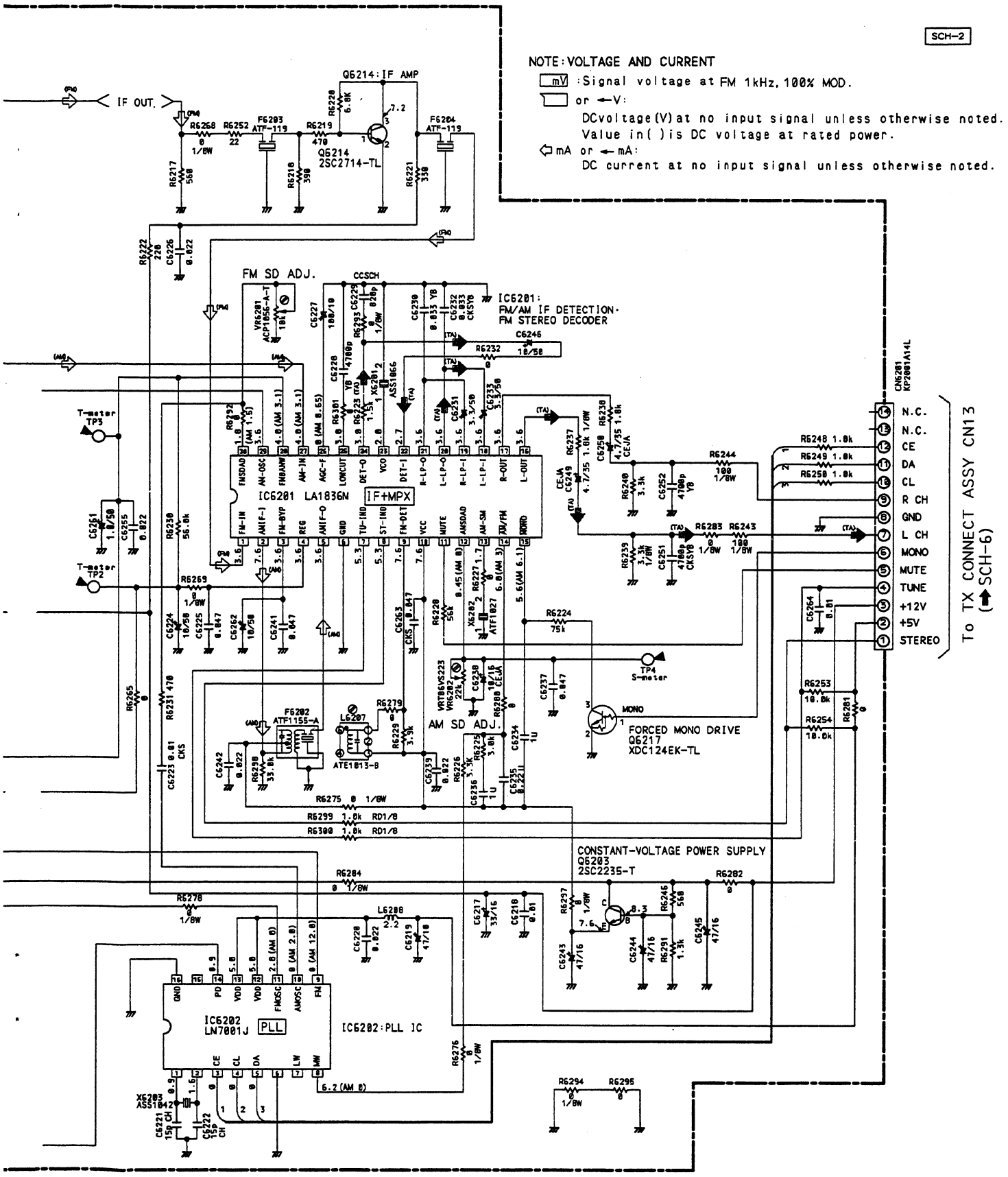
3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊐ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.

NOTE FOR PCB DIAGRAMS:
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

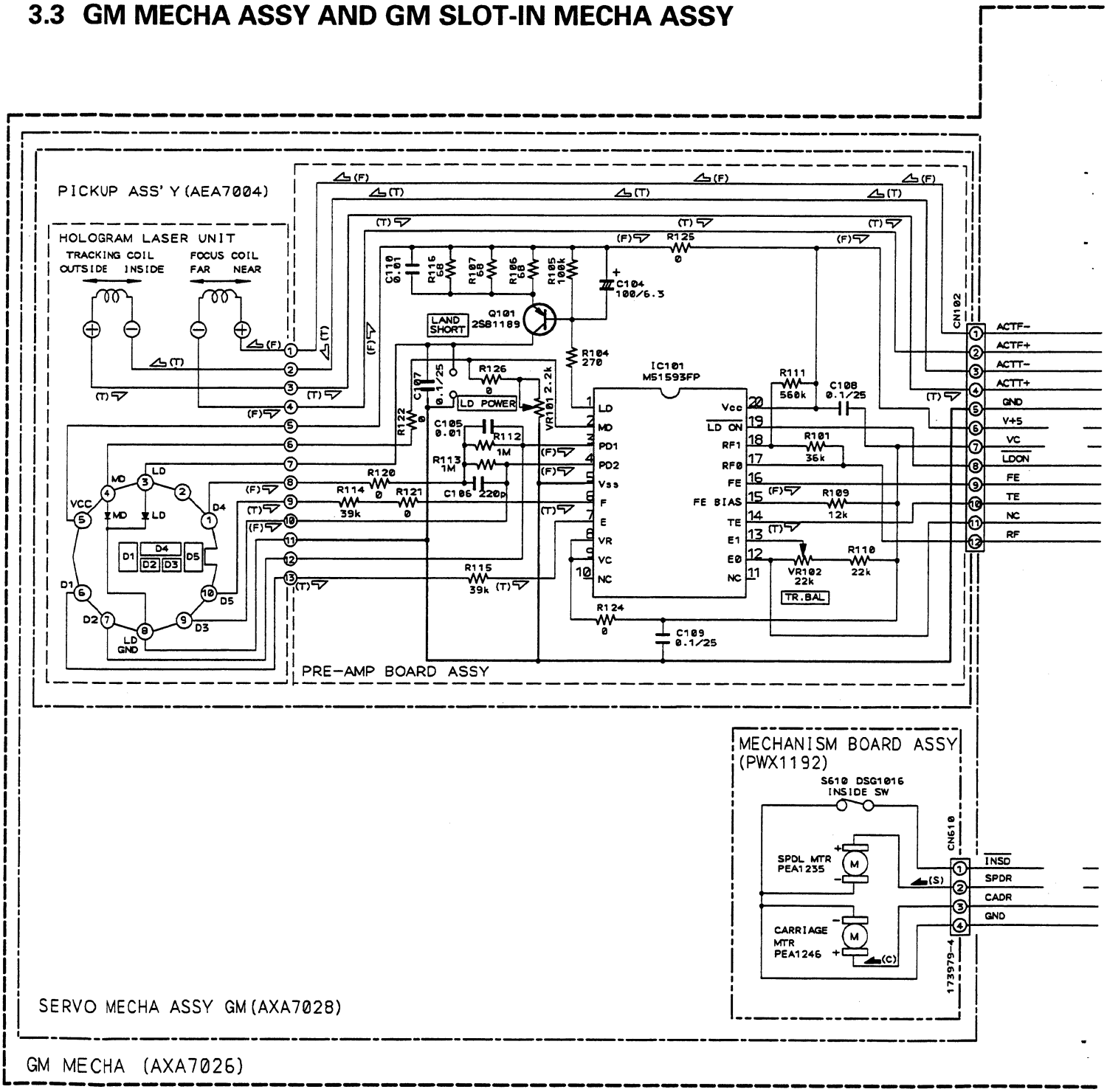
| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|---|---|---|
| B C E | B C E B C E | Transistor |
| B C E | B C E B C E | Transistor with resistor |
| D G S | D G S D G S | Field effect transistor |
| | | Resistor array |
| | | 3- terminal regulator |




**SCH-2** FM/AM TUNER MODULE


SCH-2
NOTE: VOLTAGE AND CURRENT
mV : Signal voltage at FM 1kHz, 100% MOD.
or ←V:
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.
mA or ← mA:
DC current at no input signal unless otherwise noted.
IF OUT.
Q6214: IF AMP
Q6214 2SC2714-TL
FM SD ADJ.
IC6201: FM/AM IF DETECTION· FM STEREO DECODER
IC6201 LA1836N IF+MPX
AM SD ADJ.
FORCED MONO DRIVE Q6217 XDC124EK-TL
CONSTANT-VOLTAGE POWER SUPPLY Q6203 2SC2235-T
IC6202 LN7001J PLL
IC6202: PLL IC
CN6201 KP2001A14L
N.C.
N.C.
CE
DA
CL
R CH
GND
L CH
MONO
MUTE
TUNE
+12V
+5V
STEREO
To TX CONNECT ASSY CN13 (↑SCH-6)

## 3.3 GM MECHA ASSY AND GM SLOT-IN MECHA ASSY




SIGNAL ROUTE

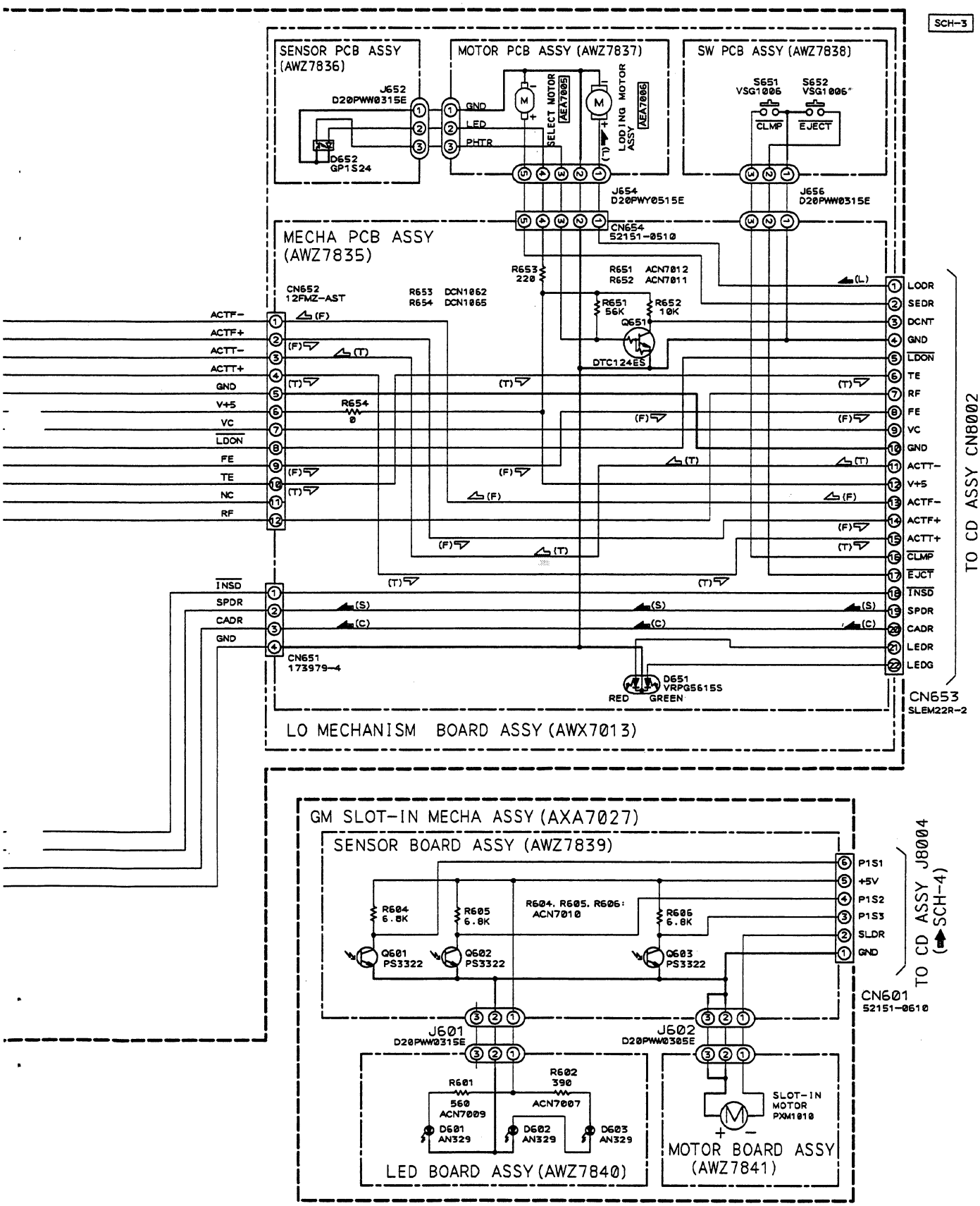
(F) : FOCUS SERVO LOOP LINE

(T) : TRACKING SERVO LOOP LINE

(L) : LOADING MOTOR ROUTE

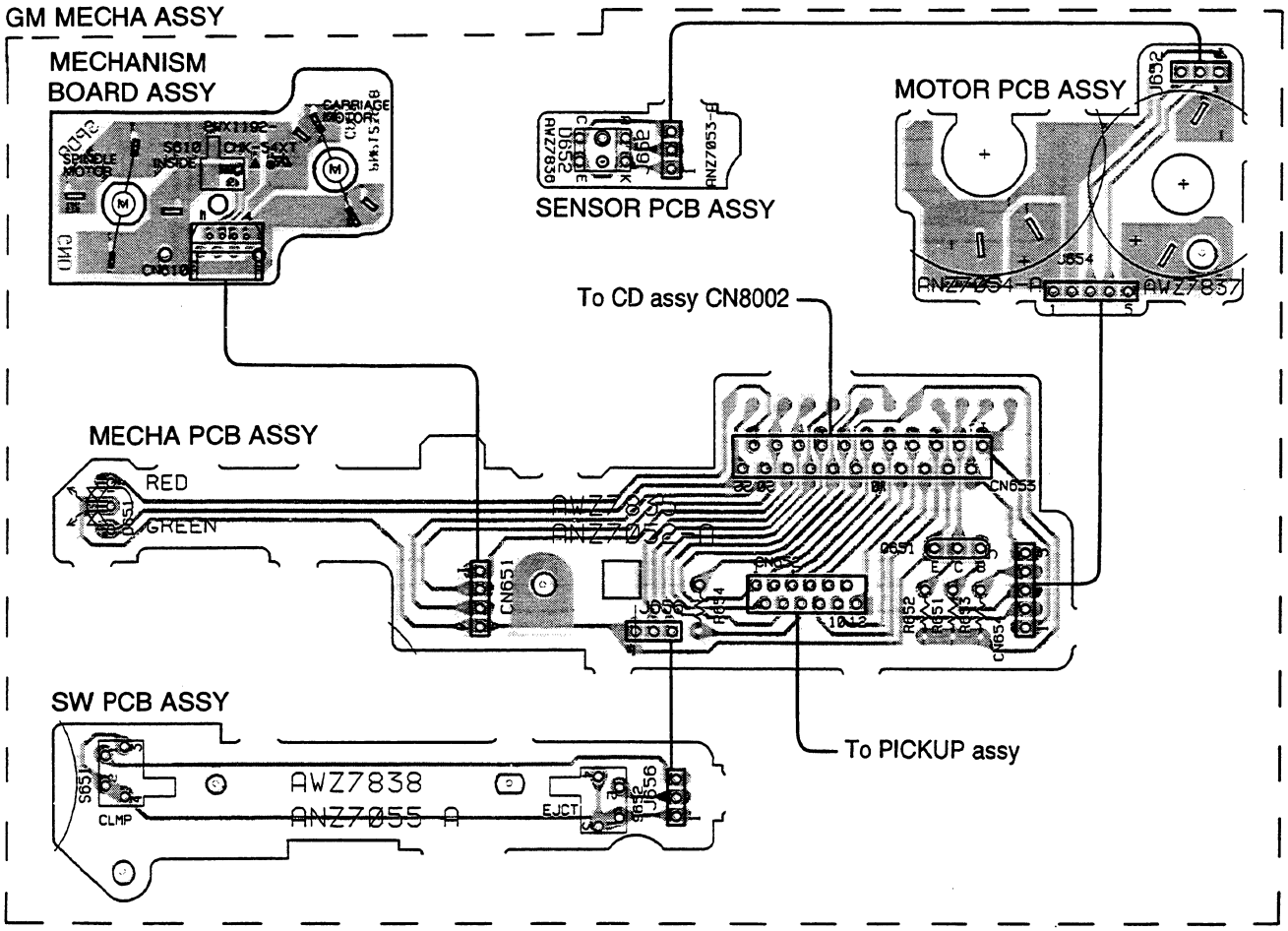
(S) : SPINDLE MOTOR ROUTE

(C) : CARRIAGE MOTOR ROUTE


SCH-3
SENSOR PCB ASSY (AWZ7836)
J652 D20PWW0315E
D652 GP1S24
MOTOR PCB ASSY (AWZ7837)
GND
LED
PHTR
SELECT MOTOR (AEA7005)
LODING MOTOR ASSY (AEA7006)
SW PCB ASSY (AWZ7838)
S651 VSG1006
S652 VSG1006
CLMP
EJECT
J654 D20PWY0515E
J656 D20PWW0315E
CN654 52151-0510
MECHA PCB ASSY (AWZ7835)
CN652 12FMZ-AST
R653 DCN1062
R654 DCN1065
R653 220
R651 ACN7012
R652 ACN7011
R651 56K
R652 10K
Q651
DTC124ES
R654 0
ACTF-
ACTF+
ACTT-
ACTT+
GND
V+5
VC
LDON
FE
TE
NC
RF
LODR
SEDR
DCNT
GND
LDON
TE
RF
FE
VC
GND
ACTT-
V+5
ACTF-
ACTF+
ACTT+
CLMP
EJCT
INSD
SPDR
CADR
LEDR
LEDG
TO CD ASSY CN8002 (SCH-4)
INSD
SPDR
CADR
GND
CN651 173979-4
D651 VRPG5615S
RED
GREEN
CN653 SLEM22R-2
LO MECHANISM BOARD ASSY (AWX7013)
GM SLOT-IN MECHA ASSY (AXA7027)
SENSOR BOARD ASSY (AWZ7839)
R604 6.8K
R605 6.8K
R604, R605, R606: ACN7010
R606 6.8K
Q601 PS3322
Q602 PS3322
Q603 PS3322
P1S1
+5V
P1S2
P1S3
SLDR
GND
TO CD ASSY J8004 (SCH-4)
CN601 52151-0610
J601 D20PWW0315E
J602 D20PWW0305E
R601 560 ACN7009
R602 390 ACN7007
D601 AN329
D602 AN329
D603 AN329
LED BOARD ASSY (AWZ7840)
SLOT-IN MOTOR PXM1010
MOTOR BOARD ASSY (AWZ7841)

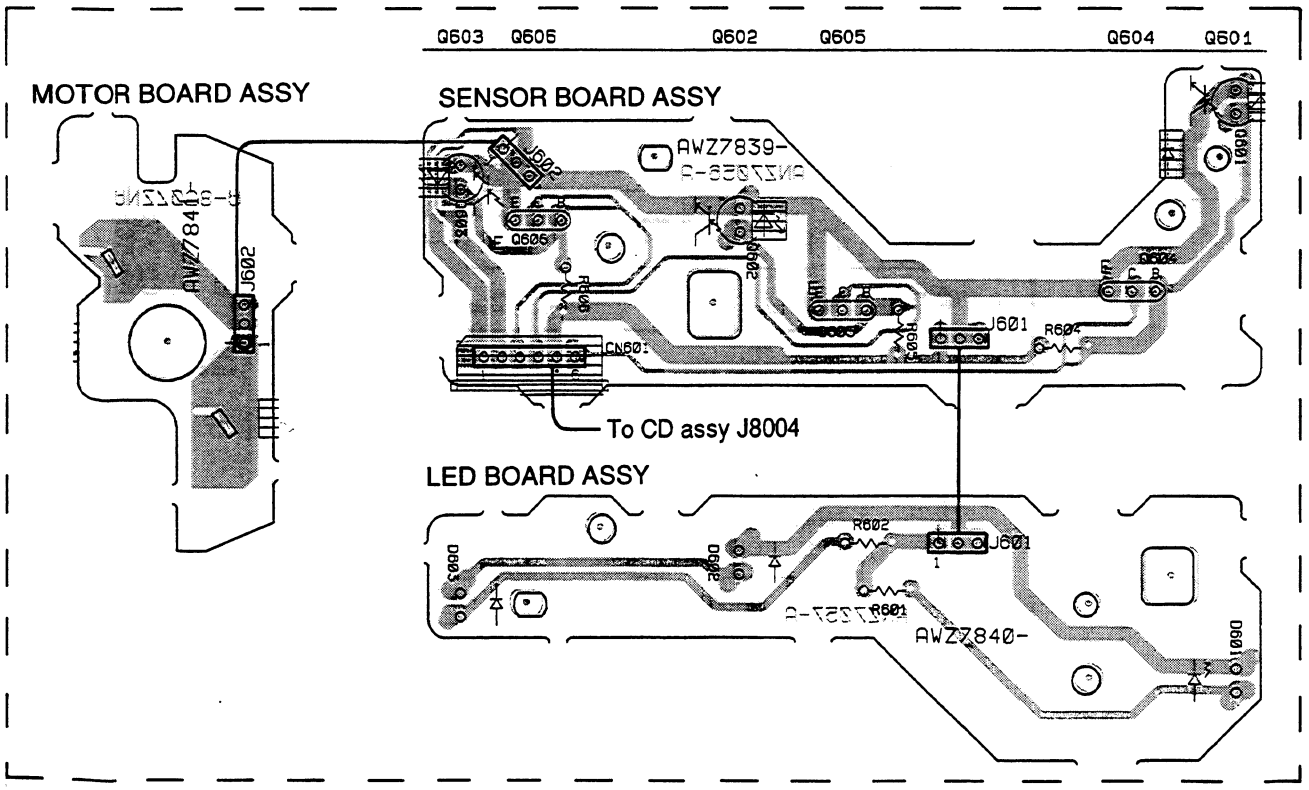
# XR-P760F

PCB – 2




• This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

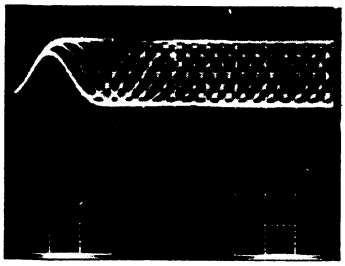


## Waveforms

*Note: The encircled numbers denote measuring point in the schematic disgram.*

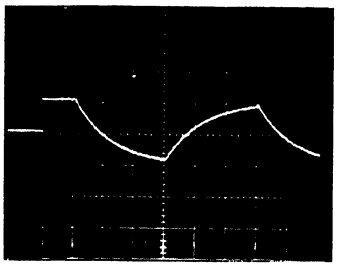
*2 FOCUS: Press the key without loading a disc.

(2) TP1-Pin1: PLAY MODE (RF)
500mV/div 500nsec/div



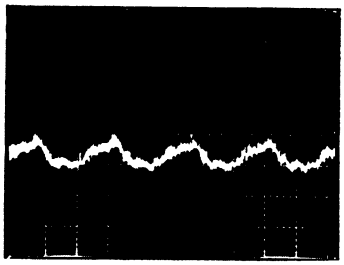
– VC

(5) IC8202-Pin3: FOCUS-IN (*2) MODE (FODR)
1V/div 200msec/div



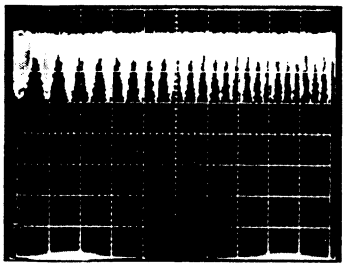
– GND

(7) IC8201-Pin3: PLAY MODE (SPDR)
1V/div 50msec/div



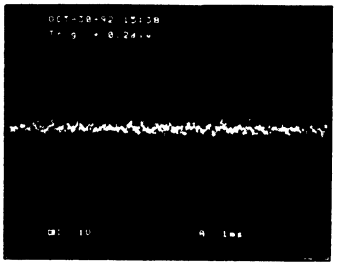
– GND

(2) TP1-Pin1: TRACK SEARCH MODE (RF)
500mV/div 200μsec/div



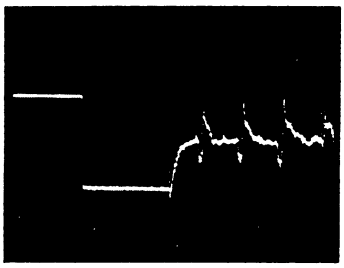
– VC

(5) IC8202-Pin3: PLAY MODE (FODR)
1V/div 1msec/div



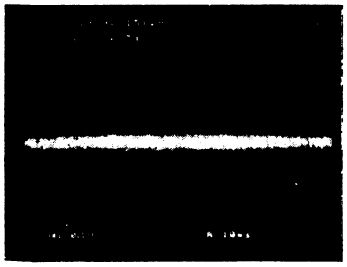
– GND

(7) IC8201-Pin3: TRACK SEARCH MODE (SPDR)
2V/div 50msec/div



– GND

(3) TP1-Pin6: PLAY MODE (FOER)
100mV/div 10msec/div

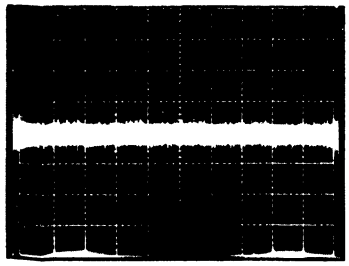


– VC

(8) IC8202-Pin9: PLAY MODE (CADR)
0.2V/div 2sec/div

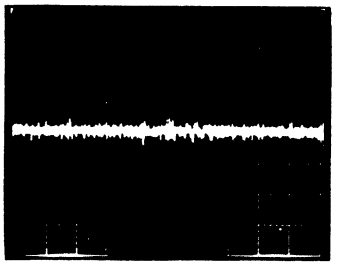
– GND

(4) TP1-Pin2: PLAY MODE (TRER)
1V/div 1msec/div



– VC

(6) IC8202-Pin4: PLAY MODE (TRDR)
500mV/div 1msec/div



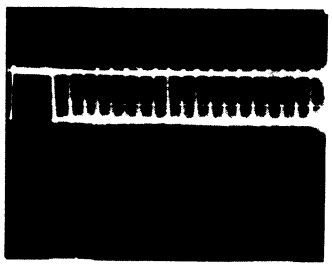
– GND

(8) IC8202-Pin9: TRACK SEARCH MODE (CADR)
2V/div 200msec/div

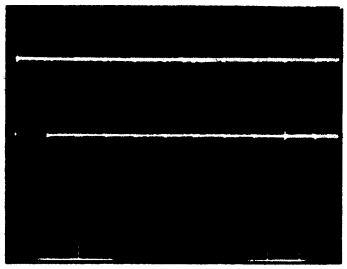
– GND

# XR-P760F

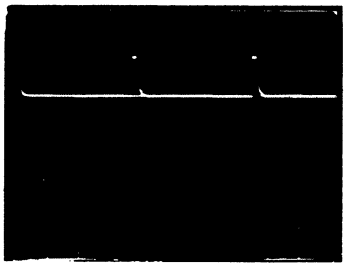
⑨ IC8151-Pin32: PLAY MODE (EFM)
2V/div 500nsec/div



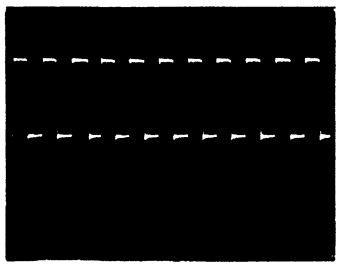

⑲ IC8301-Pin44: PLAY MODE (1kHz) (PCMD)
2V/div 500nsec/div



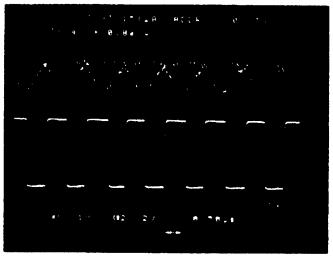

㉝ IC8301-Pin25: PLAY MODE (MDP)
2V/div 2μsec/div



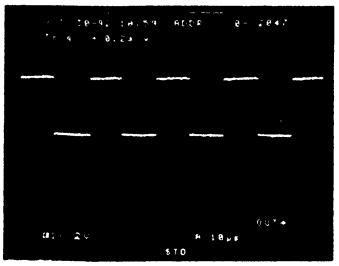

⑯ IC8301-Pin46: PLAY MODE (1kHz) (BCK)
2V/div 500nsec/div



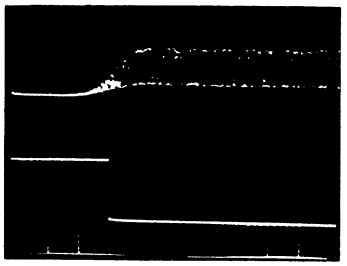

㉓ : TRACK SEARCH MODE
Upper: TP1-Pin1 (RF) 1V/div
Lower: IC8151-Pin26 (C. OUT)
2V/div 50μsec/div



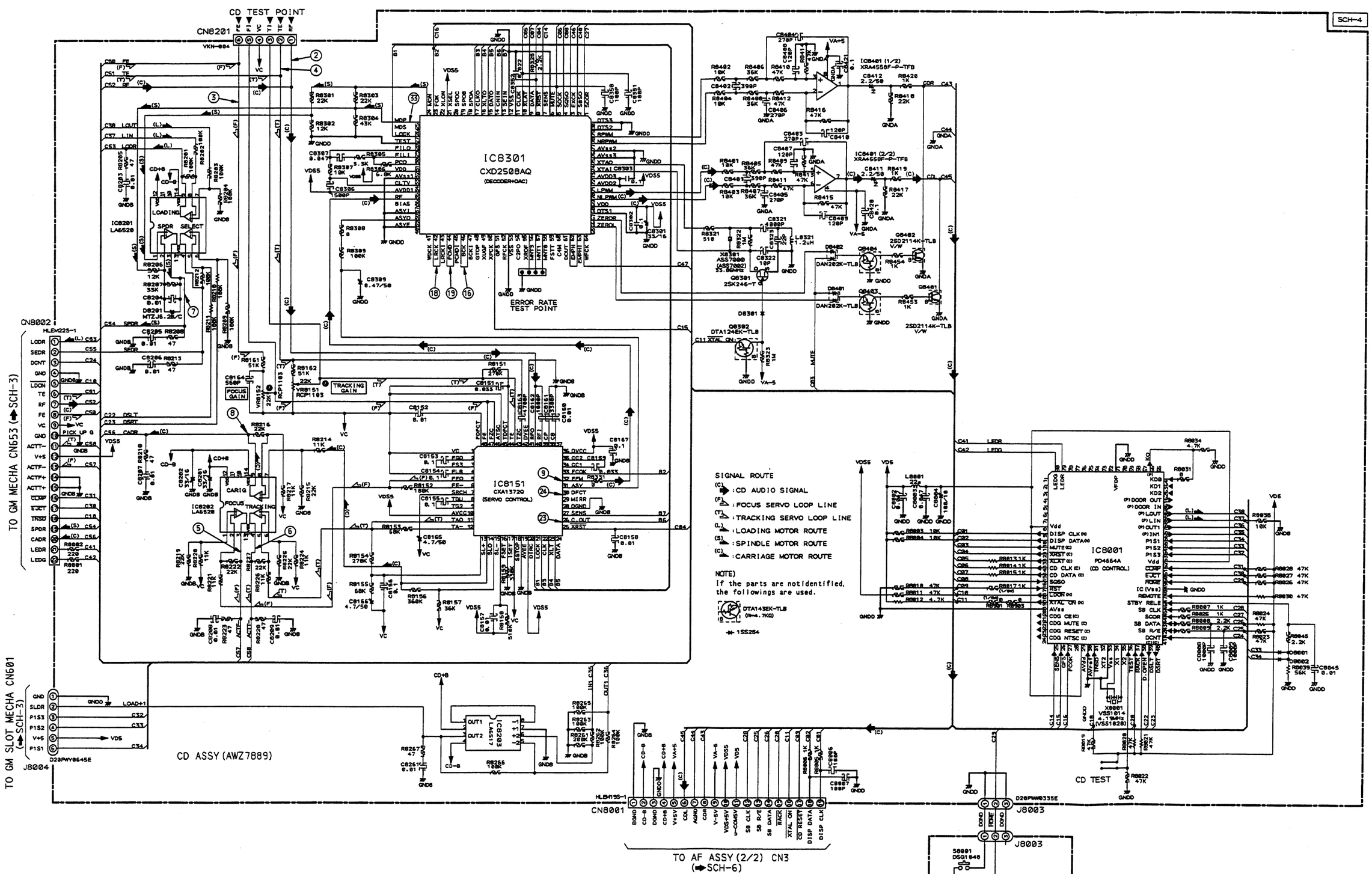

⑱ IC8301-Pin42: PLAY MODE (1kHz) (LRCK)
2V/div 10μsec/div




㉔ : PLAY MODE
Upper: TP1-Pin1 (RF) 1V/div
Lower: IC8151-Pin30 (DFCT)
5V/div 200μsec/div



## 3.4 CD ASSY AND HOME SW ASSY

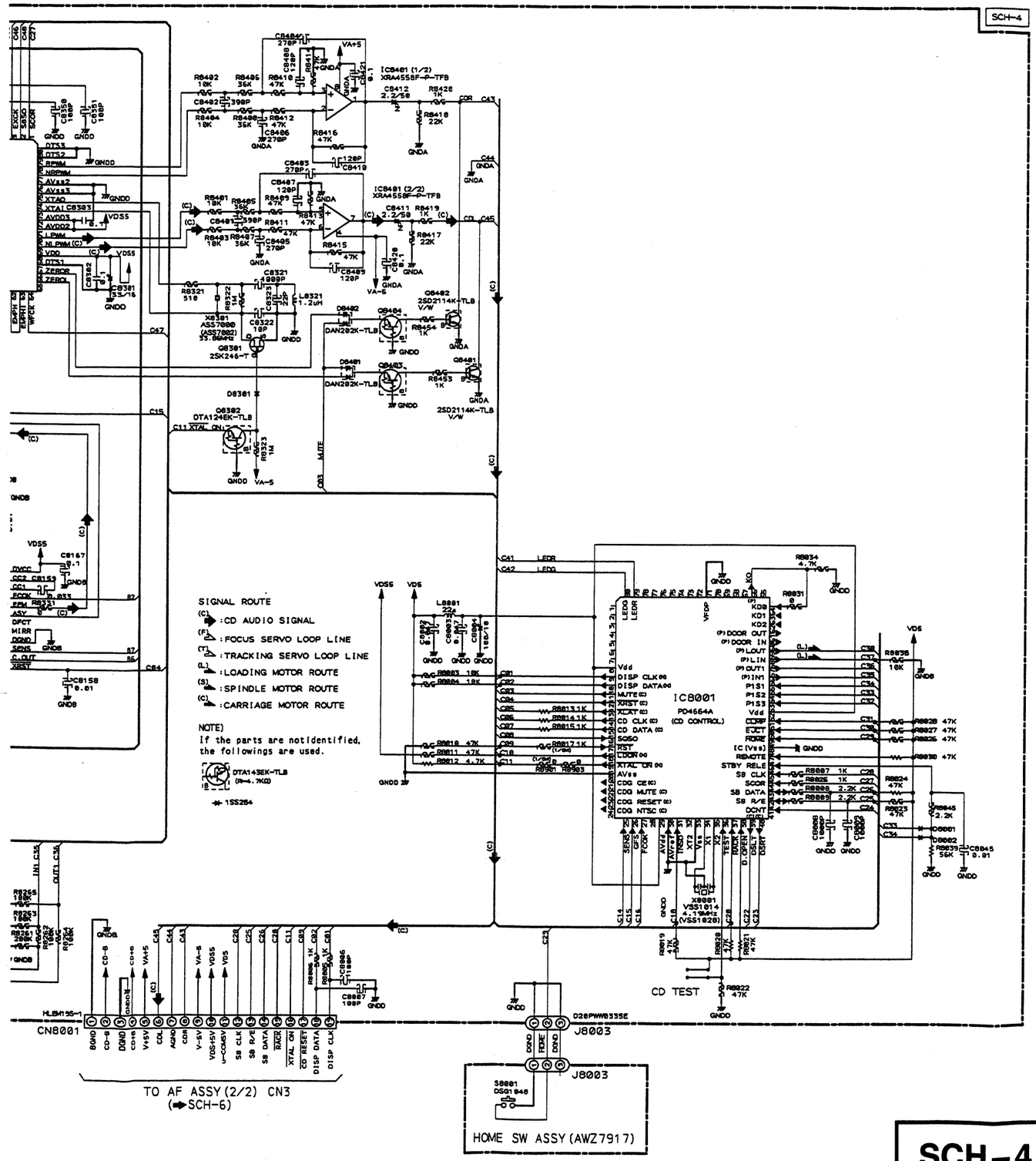


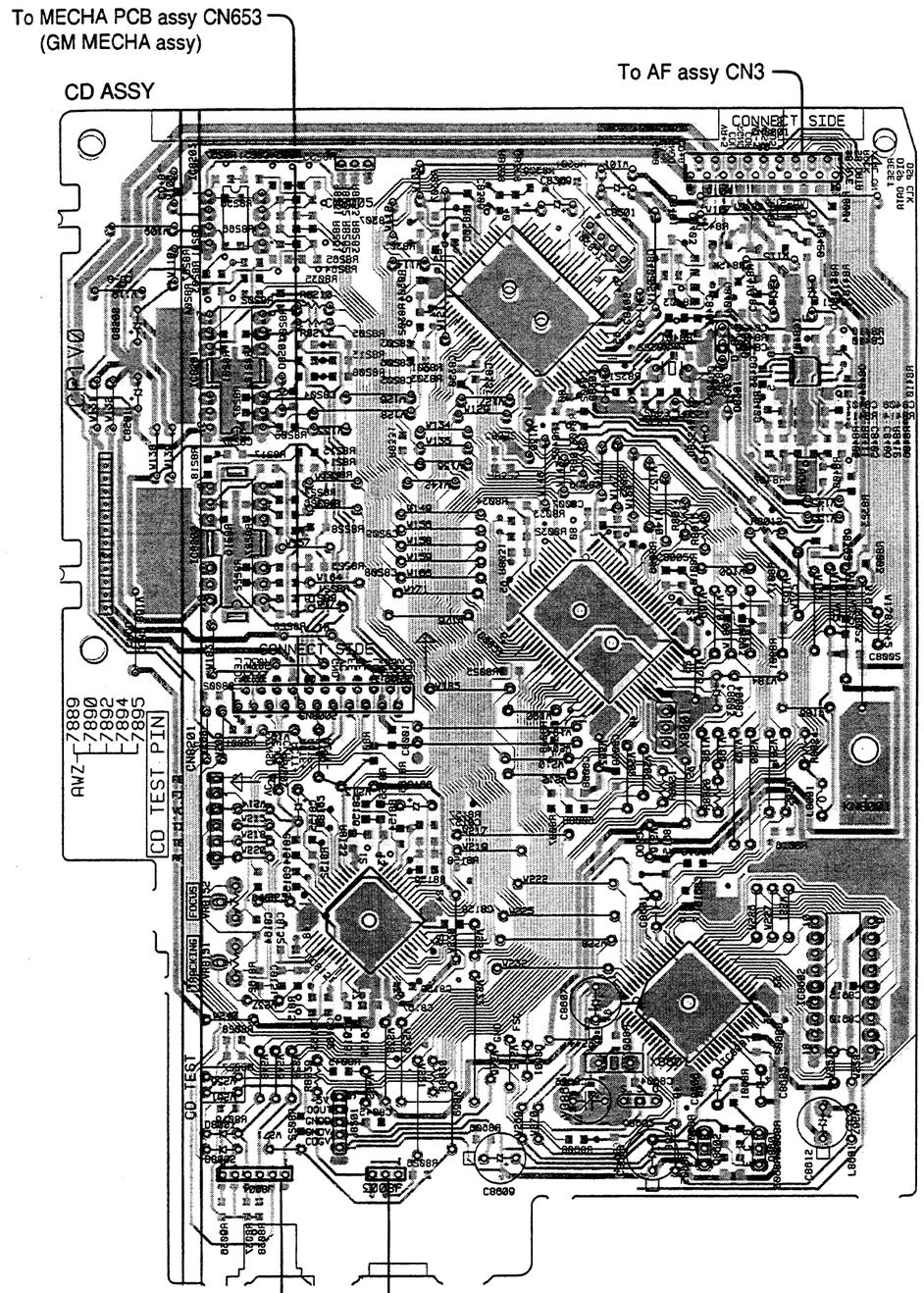

**SCH-4**

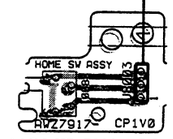
CD ASSY, HOME SW ASSY

CD ASSY, HOME SW ASSY

**SCH-4**




HOME SW ASSY

- This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

PCB-3

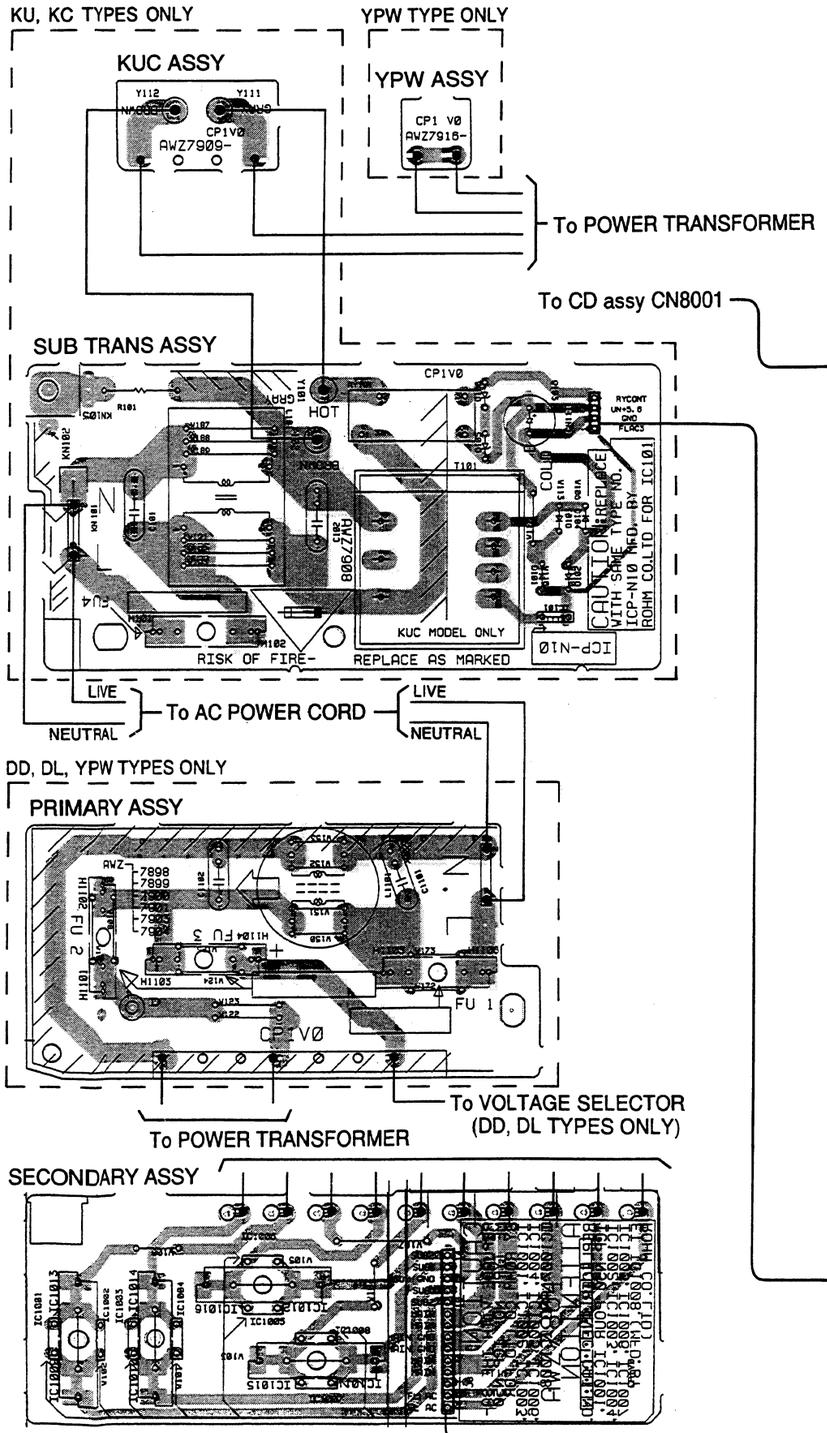
IC8203 Q8401 | Q8403
IC8301 Q8404
Q8301
IC8201 IC8401
IC8202 Q8302
IC8001
VR8152 IC8151
VR8151
IC8602 IC8601
Q8603
Q8602 Q8601

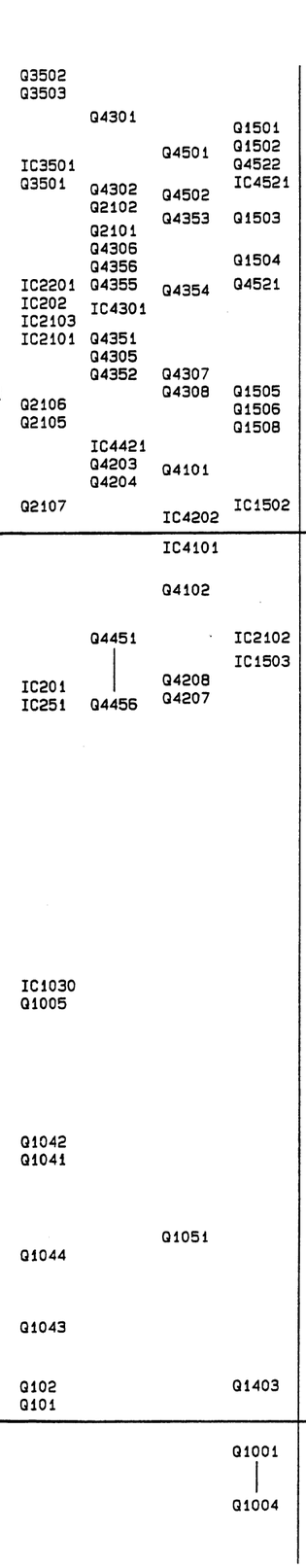
**SCH-4**

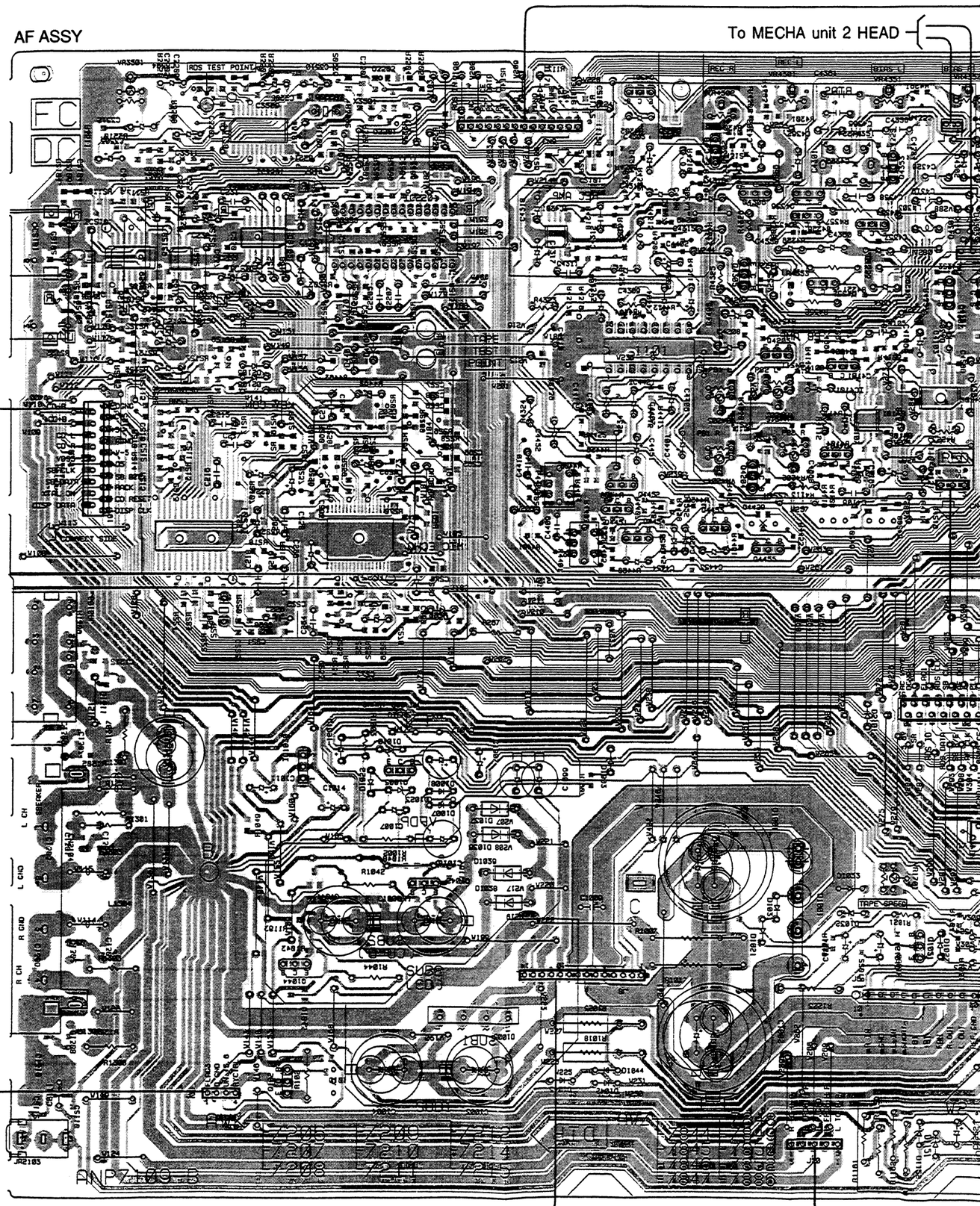
CD ASSY, HOME SW ASSY

# XR-P760F

## 3.5 AF ASSY, VOL ASSY, SECONDARY ASSY, TX CONNECT ASSY, HEADPHONE ASSY, SUB TRANS ASSY, KUC ASSY, YPW ASSY AND PRIMARY ASSY



AF ASSY

To MECHA unit 2 HEAD

TX CONNECT ASSY

AWZ8176

To FM/AM TUNER MODULE
CN6201

VOL ASSY

VR1501

IC1501

To MECHA unit 1 HEAD

To DISPLAY assy CN1901

To OPERATION- A assy CN1702

To REGULATOR assy CN7101

To FRONT 100W assy CN7502

HEADPHONE ASSY

L OUT
L IN
GNDA
R IN
R OUT

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

- This diagram is viewed from the mounted parts side.

VR4351
VR4352
Q1501 VR4301
Q1502 VR4302
501 Q4522 VR3501
IC4521
502
353 Q1503
Q1504
354 Q4521
307
308 Q1505
Q1506
Q1508
101
IC1502 VR4201
4202 VR4203
4101
102 VR4202
VR4204
IC2102
IC1503
208
207

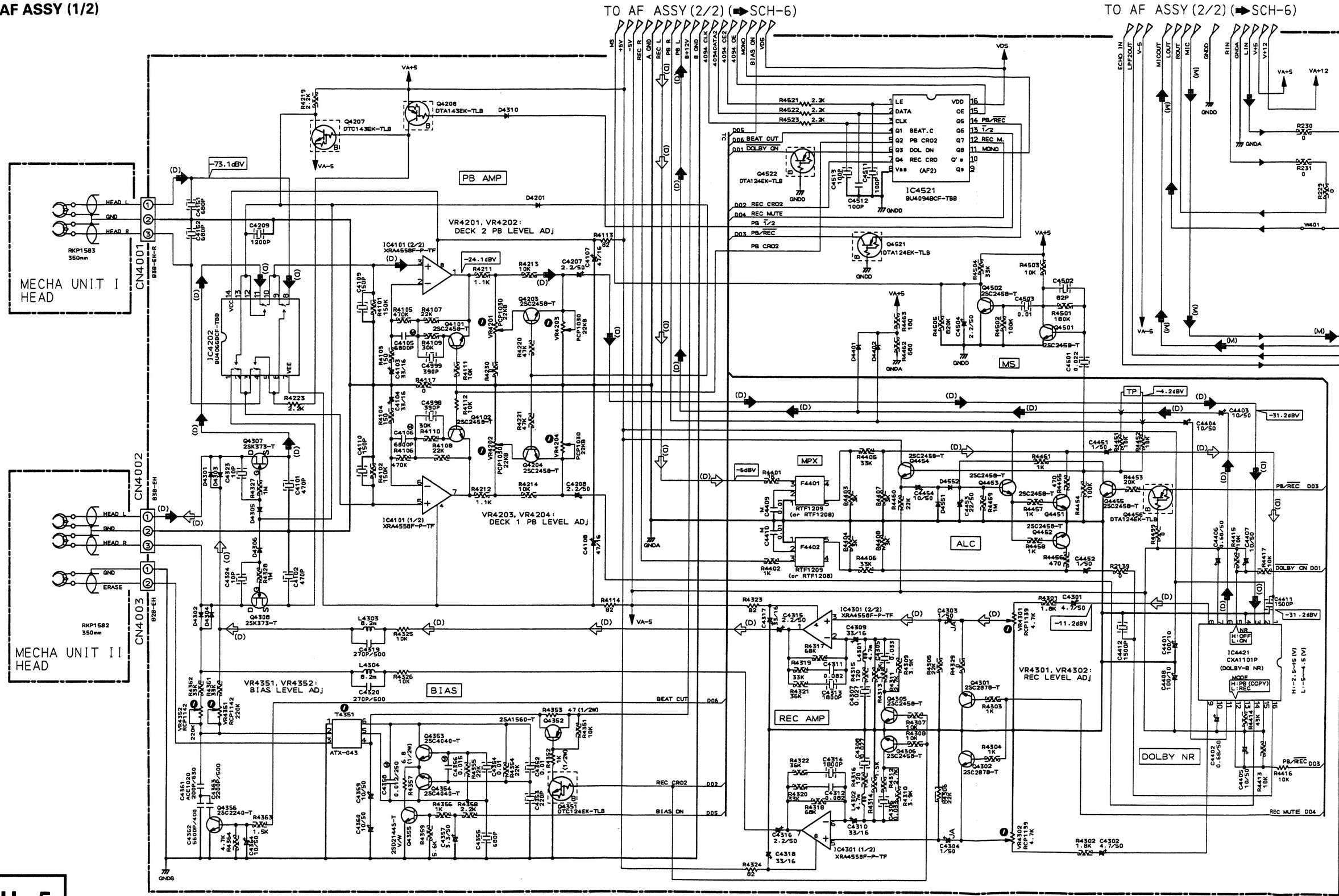
VR1701

051

Q1403

Q1001
—
Q1004

## ● AF ASSY (1/2)




**SCH-5** AF ASSY (1/2)

TO AF ASSY (2/2) (➡SCH-6)

TO AF ASSY (2/2) (➡SCH-6)

SCH-5

SIGNAL ROUTE
(D) ➡ :DECK PB SIGNAL
(D) ➡ :DECK REC SIGNAL
(M) ➡ :MIC AUDIO SIGNAL
➡ :AUDIO SIGNAL

IC251 M65845FP

| PIN No. | VOLTAGE (V) | PIN No. | VOLTAGE (V) |
|---|---|---|---|
| 1 | 0 | 19 | 4.88 |
| 2 | 2.45 | 20 | 8.49 |
| 3 | 2.45 | 21 | 2.44 |
| 4 | 2.45 | 22 | 2.44 |
| 5 | 2.45 | 23 | 2.44 |
| 6 | 0 | 24 | 2.44 |
| 7 | 2.46 | 25 | 2.44 |
| 8 | 2.45 | 26 | 2.44 |
| 9 | 2.45 | 27 | 2.44 |
| 10 | 2.45 | 28 | 2.45 |
| 11 | 2.45 | 29 | 2.44 |
| 12 | 2.45 | 30 | 2.45 |
| 13 | 2.45 | 31 | 4.82 |
| 14 | 2.45 | 32 | 2.13 |
| 15 | 2.45 | 33 | 0.0 |
| 16 | 8.49 | 34 | 0.0 |
| 17 | 2.45 | 35 | 0.0 |
| 18 | 0 | 36 | 2.46 |

XR-P760F/DD, DL, YPW ONLY

XR-P760F/KU, KC ONLY

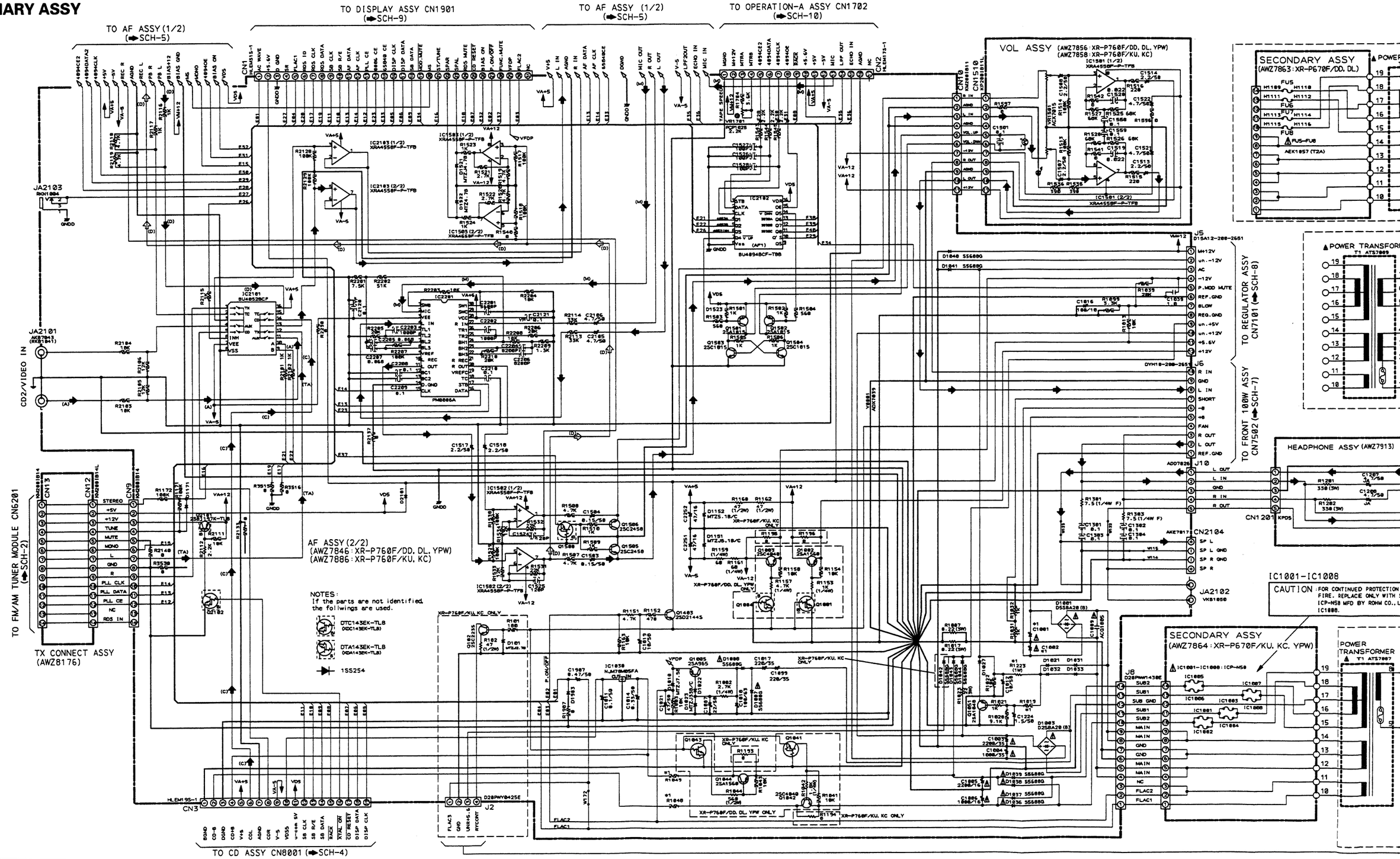
NOTES:
- ALL RESISTORS ARE IN OHMS, 1/10W, 5% UNLESS OTHERWISE SPECIFIED.
- ALL CAPACITORS ARE IN MICROFARADS UNLESS OTHERWISE SPECIFIED.
- IF THE PARTS ARE NOT IDENTIFIED, THE FOLLOWINGS ARE USED.
  ➡ 1SS254

AF ASSY (1/2)
(AWZ7846 : XR-P760F/DD, DL, YPW)
(AWZ7886 : XR-P760F/KU, KC)

AF ASSY (1/2) **SCH-5**

# XR-P760F

## ● AF ASSY (2/2), VOL ASSY, SECONDARY ASSY, TX CONNECT ASSY, HEADPHONE ASSY, SUB TRANS ASSY, KUC ASSY, YPW ASSY AND PRIMARY ASSY


TO AF ASSY(1/2) (➡SCH-5)
TO DISPLAY ASSY CN1901 (➡SCH-9)
TO AF ASSY (1/2) (➡SCH-5)
TO OPERATION-A ASSY CN1702 (➡SCH-10)
VOL ASSY (AWZ7856:XR-P760F/DD, DL, YPW) (AWZ7858:XR-P760F/KU, KC)
SECONDARY ASSY (AWZ7863:XR-P670F/DD, DL)
TO REGULATOR ASSY CN7101 (➡SCH-8)
TO FRONT 100W ASSY CN7502 (➡SCH-7)
HEADPHONE ASSY (AWZ7913)
AF ASSY(2/2) (AWZ7846:XR-P760F/DD, DL, YPW) (AWZ7886:XR-P760F/KU, KC)
TO FM/AM TUNER MODULE CN6201 (➡SCH-2)
TX CONNECT ASSY (AWZ8176)
TO CD ASSY CN8001 (➡SCH-4)
SECONDARY ASSY (AWZ7864:XR-P670F/KU, KC, YPW)
IC1001-IC1008
CAUTION: FOR CONTINUED PROTECTION
NOTES:
If the parts are not identified, the follwings are used.
DTC143EK-TLB
DTA143EK-TLB
1SS254
XR-P760F/KU, KC ONLY
XR-P760F/DD, DL, YPW ONLY

**SCH-6** AF ASSY (2/2), VOL ASSY, SECONDARY ASSY, TX CONNECT ASSY, HEADPHONE ASSY, SUB TRANS ASSY, KUC ASSY, YPW ASSY, PRIMARY ASSY

TO AF ASSY (1/2) (➡SCH-5)

TO OPERATION-A ASSY CN1702 (➡SCH-10)

VOL ASSY (AWZ7856:XR-P760F/DD, DL, YPW) (AWZ7858:XR-P760F/KU, KC)

SECONDARY ASSY (AWZ7863:XR-P670F/DD, DL)

POWER TRANSFORMER T1 ATS7889

XR-P760F/DD, DL ONLY

PRIMARY ASSY (AWZ7899)

XR-P760F/YPW ONLY

PRIMARY ASSY (AWZ7900)

YPW ASSY (AWZ7916)

TO REGULATOR ASSY CN7101 (➡SCH-8)

TO FRONT 100W ASSY CN7502 (➡SCH-7)

HEADPHONE ASSY (AWZ7913)

SECONDARY ASSY (AWZ7864:XR-P670F/KU, KC, YPW)

IC1001-IC1008

CAUTION :FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N58 MFD BY ROHM CO., LTD. FOR IC1001 TO IC1008.

CAUTION :FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TYPE NO. ICP-N18 MFD BY ROHM CO., LTD. FOR IC181.

KUC ASSY (AWZ7909)

XR-P760F/KU, KC ONLY

SUB TRANS ASSY (AWZ7908)

●NOTE FOR FUSE REPLACEMENT

CAUTION – FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

*1

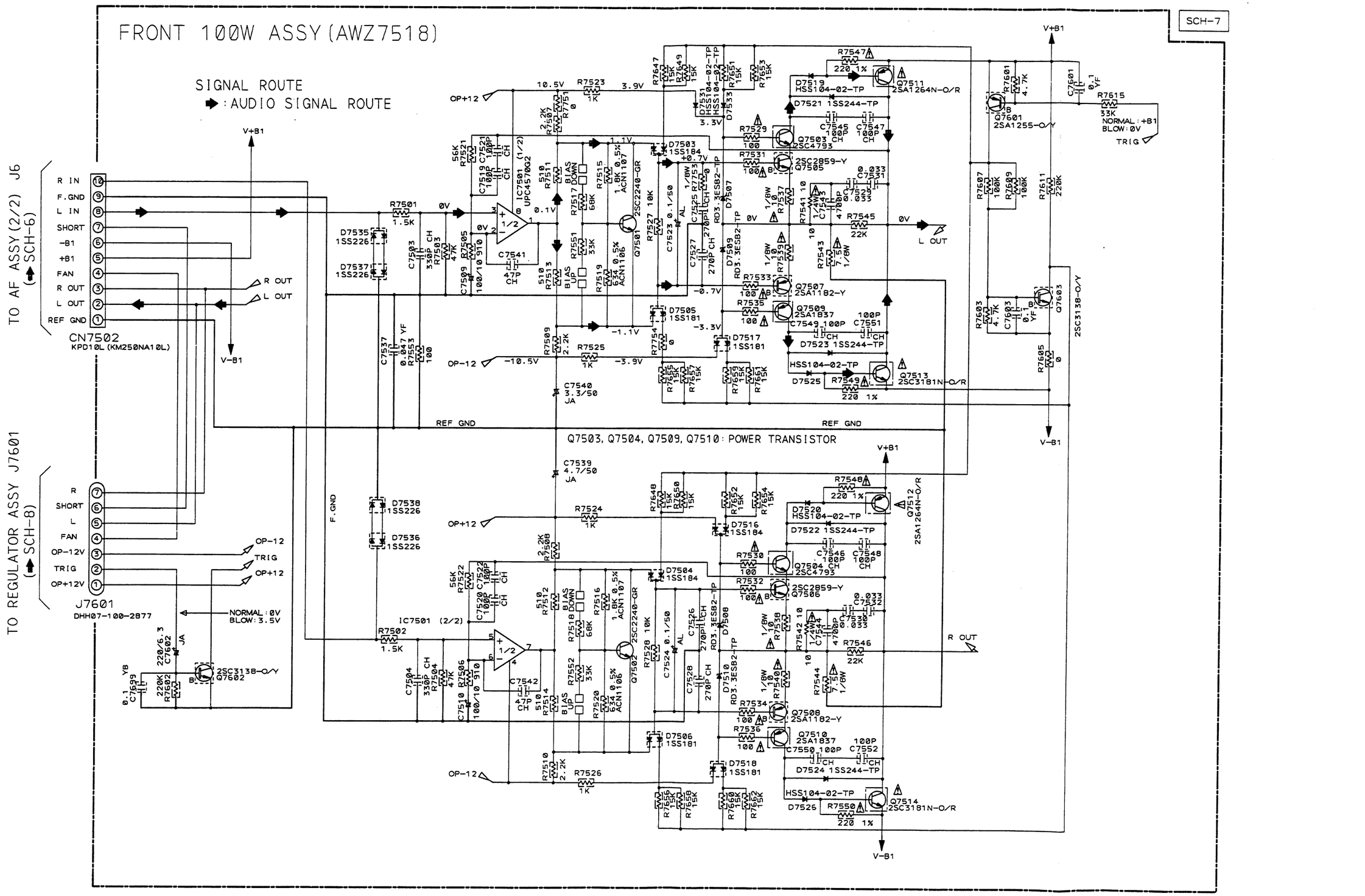
| | C881 C882 | R1619 | R1648 R1649 | R1225 |
|---|---|---|---|---|
| XR-P768F/KU, KC | ACH1249 4700/71 | 5.6K | 0 | 5.3K |
| XR-P768F/DD, DL, YPW | ACH7887 4700/53 | 4.7K | 1.2 | 2.2K |

SIGNAL ROUTE
- :AUDIO SIGNAL
- (D) :DECK PB SIGNAL
- (D) :DECK REC SIGNAL
- (M) :MIC AUDIO SIGNAL
- (C) :CD AUDIO SIGNAL
- (A) :AUX SIGNAL
- (R) :REC OUT SIGNAL
- (TA) :TUNER AUDIO SIGNAL

AF ASSY (2/2), VOL ASSY, SECONDARY ASSY, TX CONNECT ASSY, HEADPHONE ASSY, SUB TRANS ASSY, KUC ASSY, YPW ASSY, PRIMARY ASSY

**SCH-6**

## 3.6 FRONT 100W ASSY



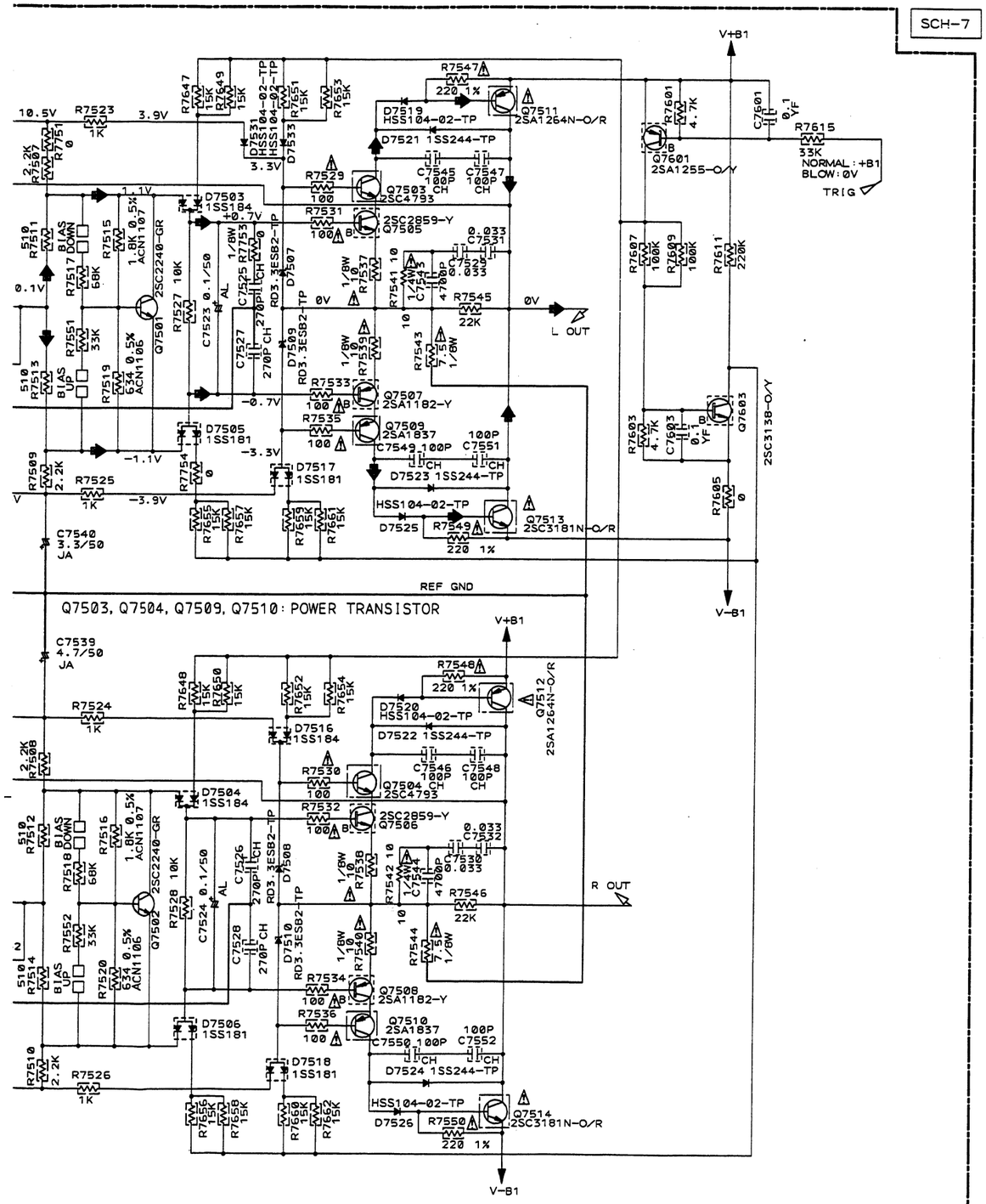

SCH-7

FRONT 100W ASSY

FRONT 100W ASSY

SCH-7

SCH-7

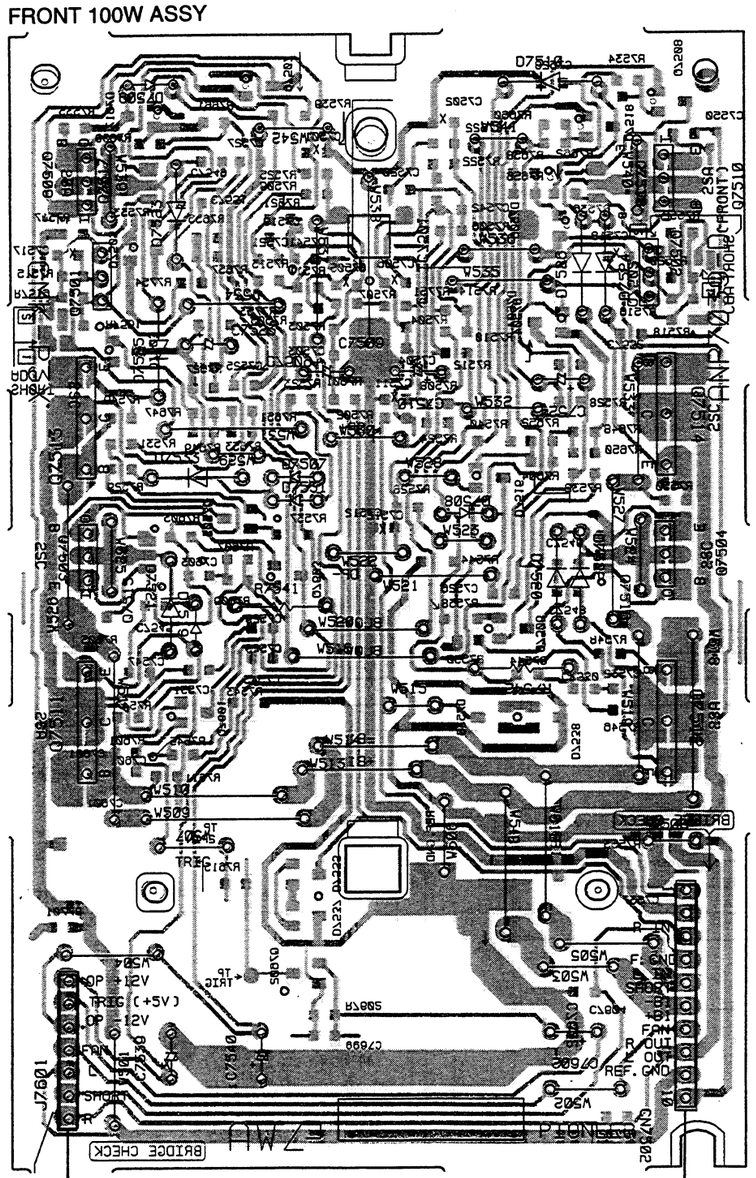



FRONT 100W ASSY

**SCH-7**

PCB-5

FRONT 100W ASSY



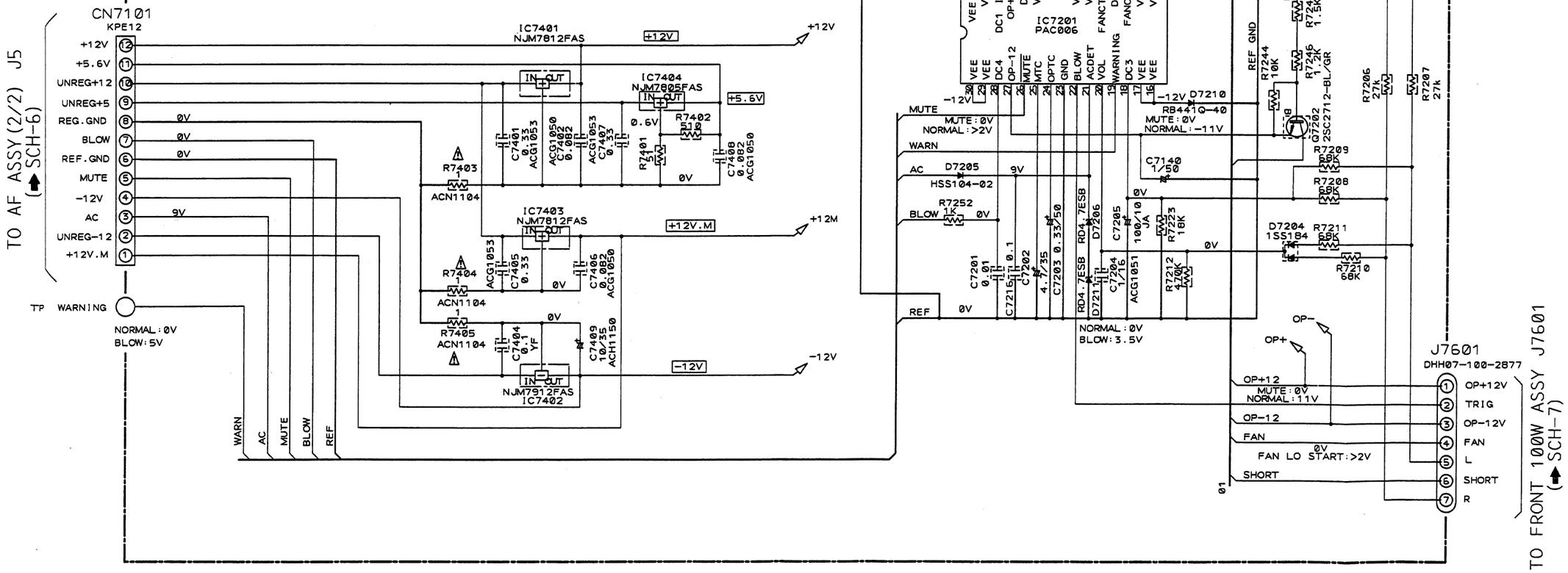

- This diagram is viewed from the mounted parts side.

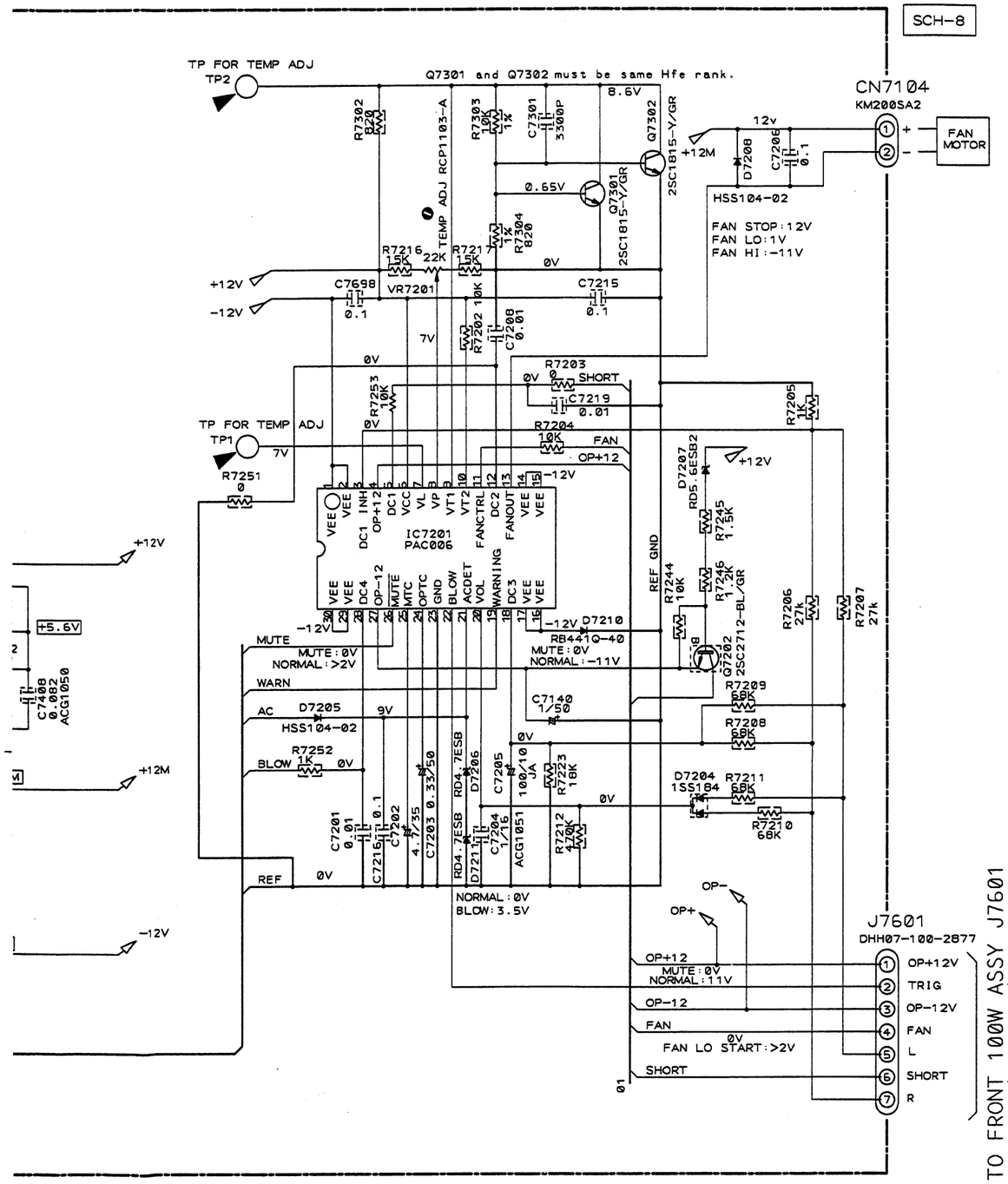
The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

## 3.7 REGULATOR ASSY

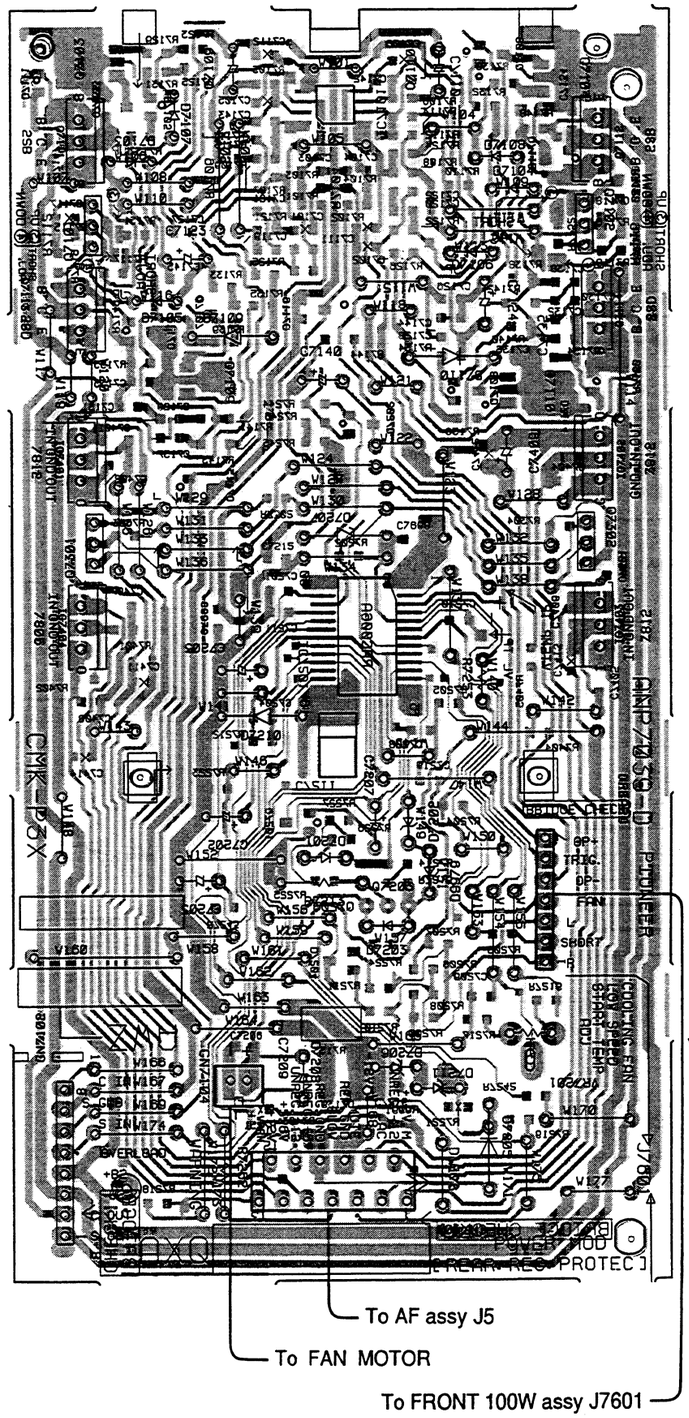
REGULATOR ASSY (AWZ7520)

SCH-8






REGULATOR ASSY




| | |
|---|---|
| Q7103 | Q7106 Q7104 |
| Q7105 | IC7101 |
| Q7111 | Q7112 |
| Q7101 | Q7102 |
| Q7113 Q7107 | Q7114 |
| Q7109 | Q7108 Q7110 Q7202 |
| IC7401 | IC7402 |
| Q7301 | Q7302 |
| IC7404 | IC7403 IC7201 |

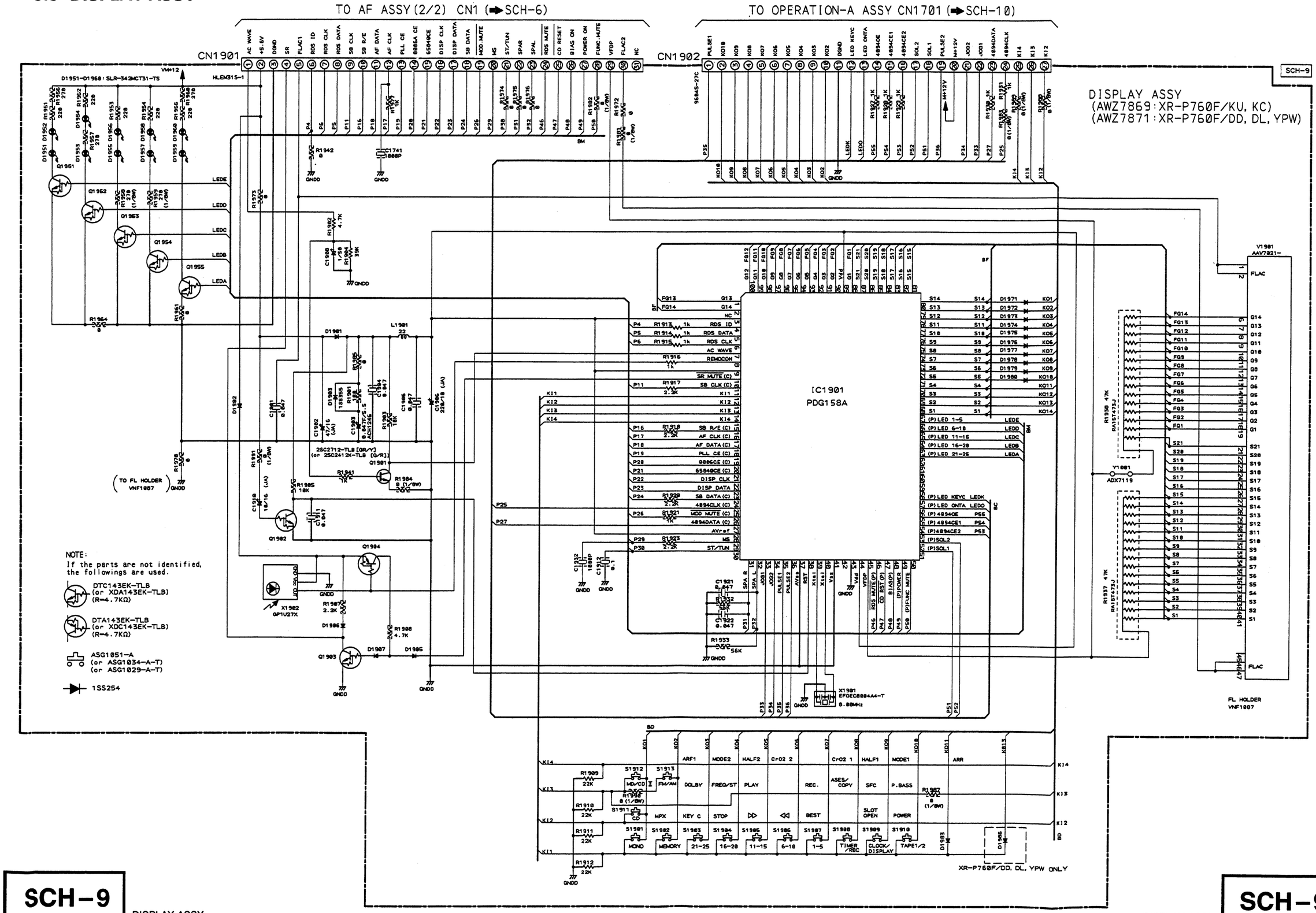
**SCH-8**

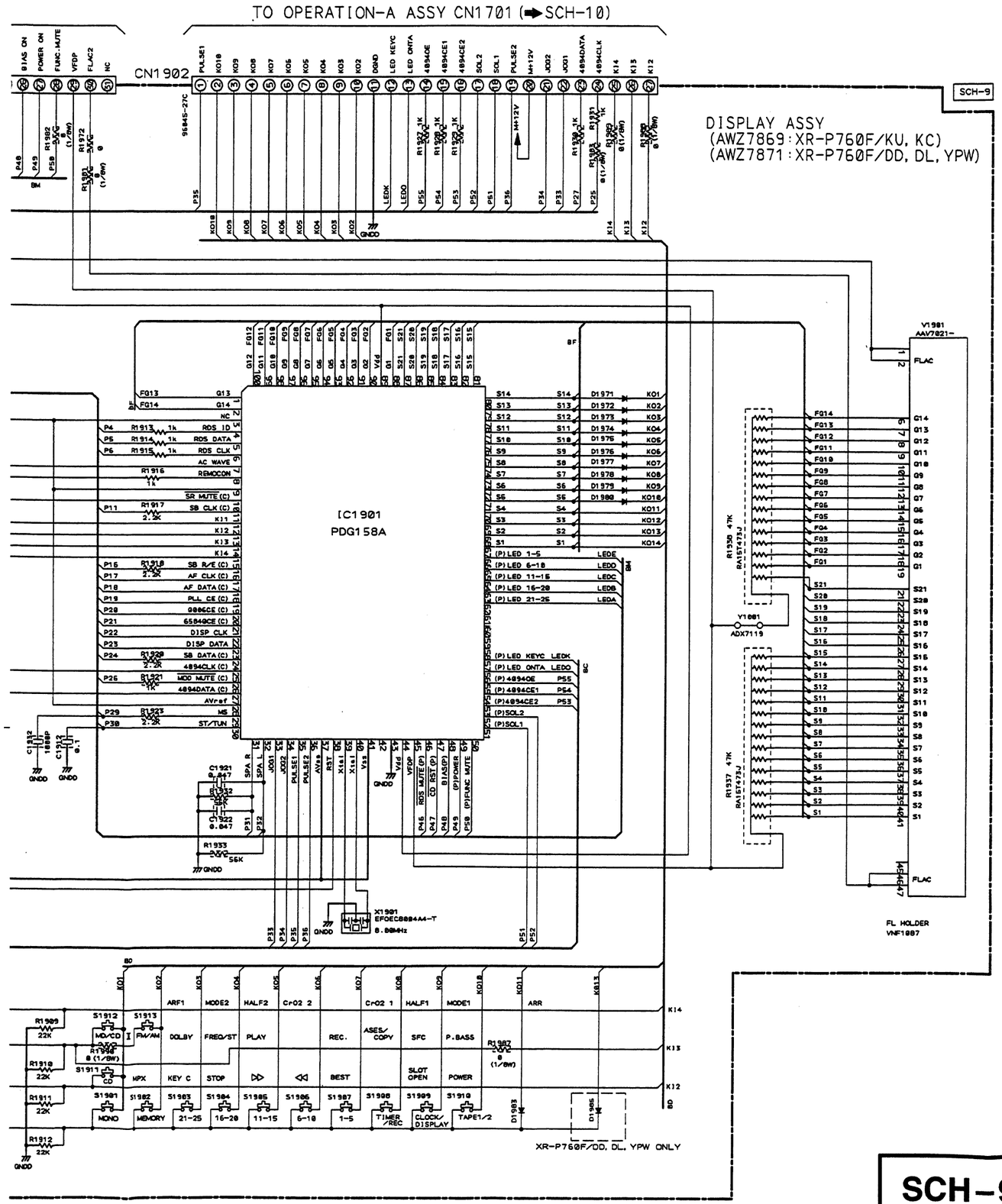
REGULATOR ASSY

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

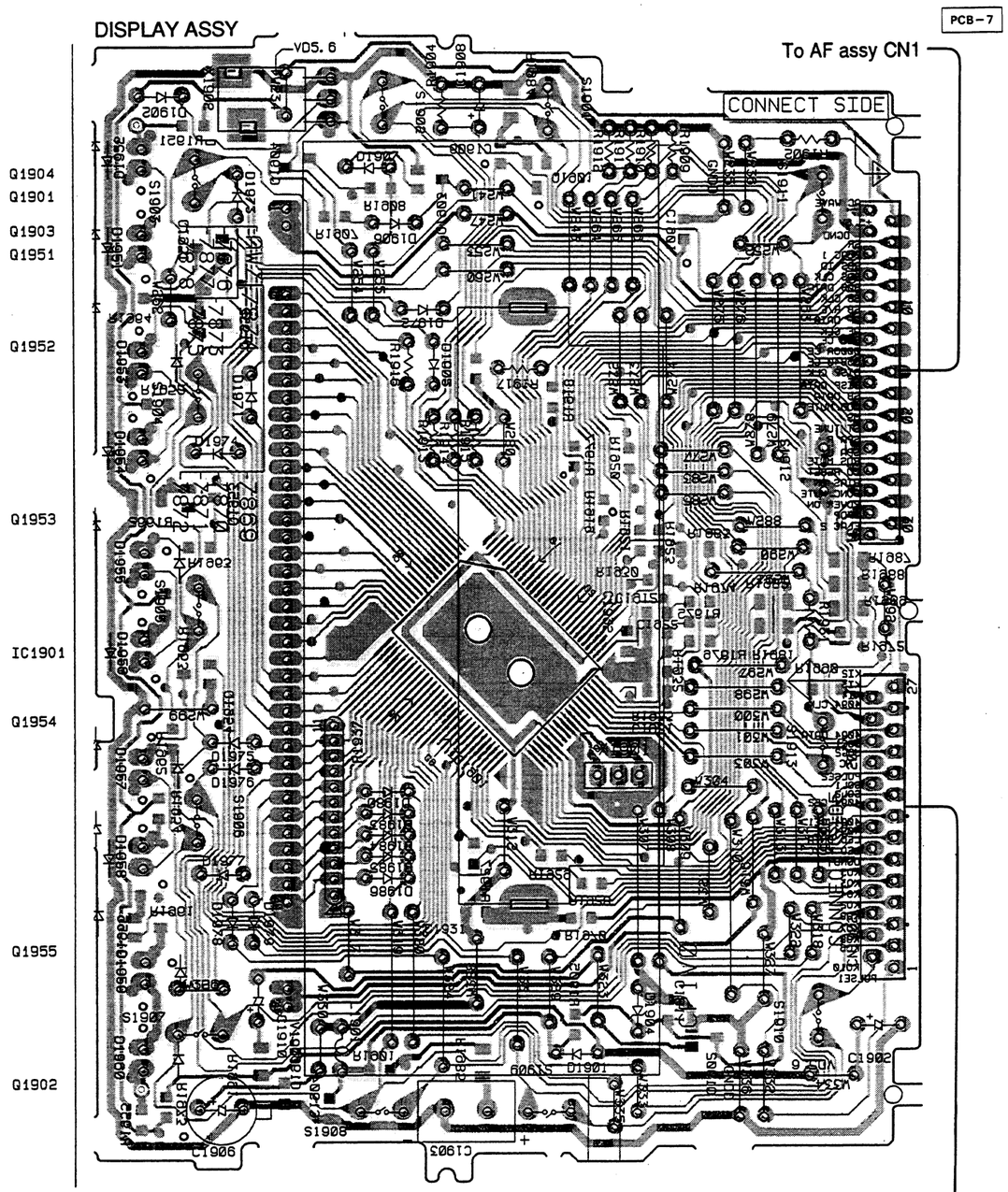
- This diagram is viewed from the mounted parts side.

## 3.8 DISPLAY ASSY





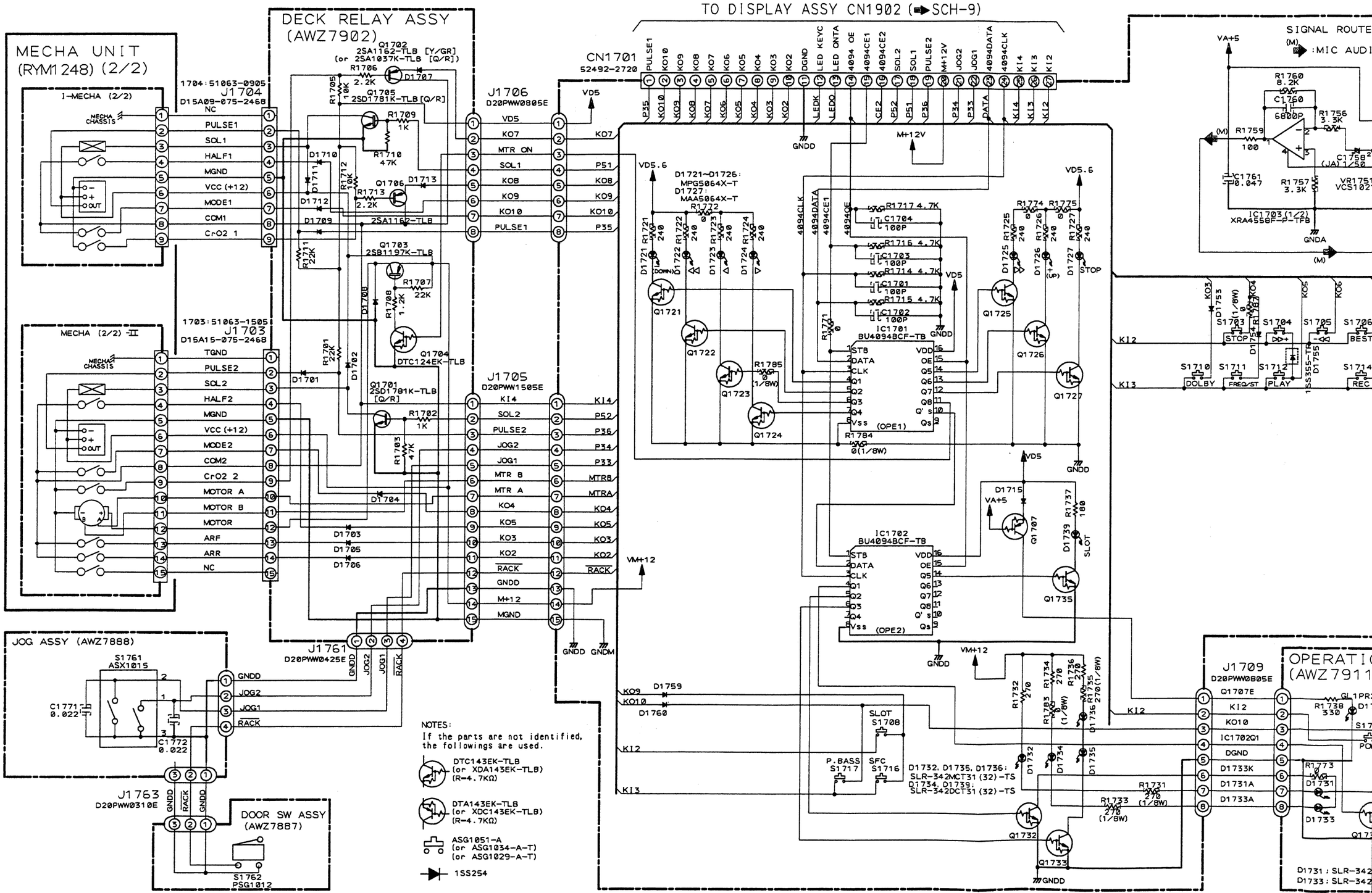

DISPLAY ASSY **SCH-9**



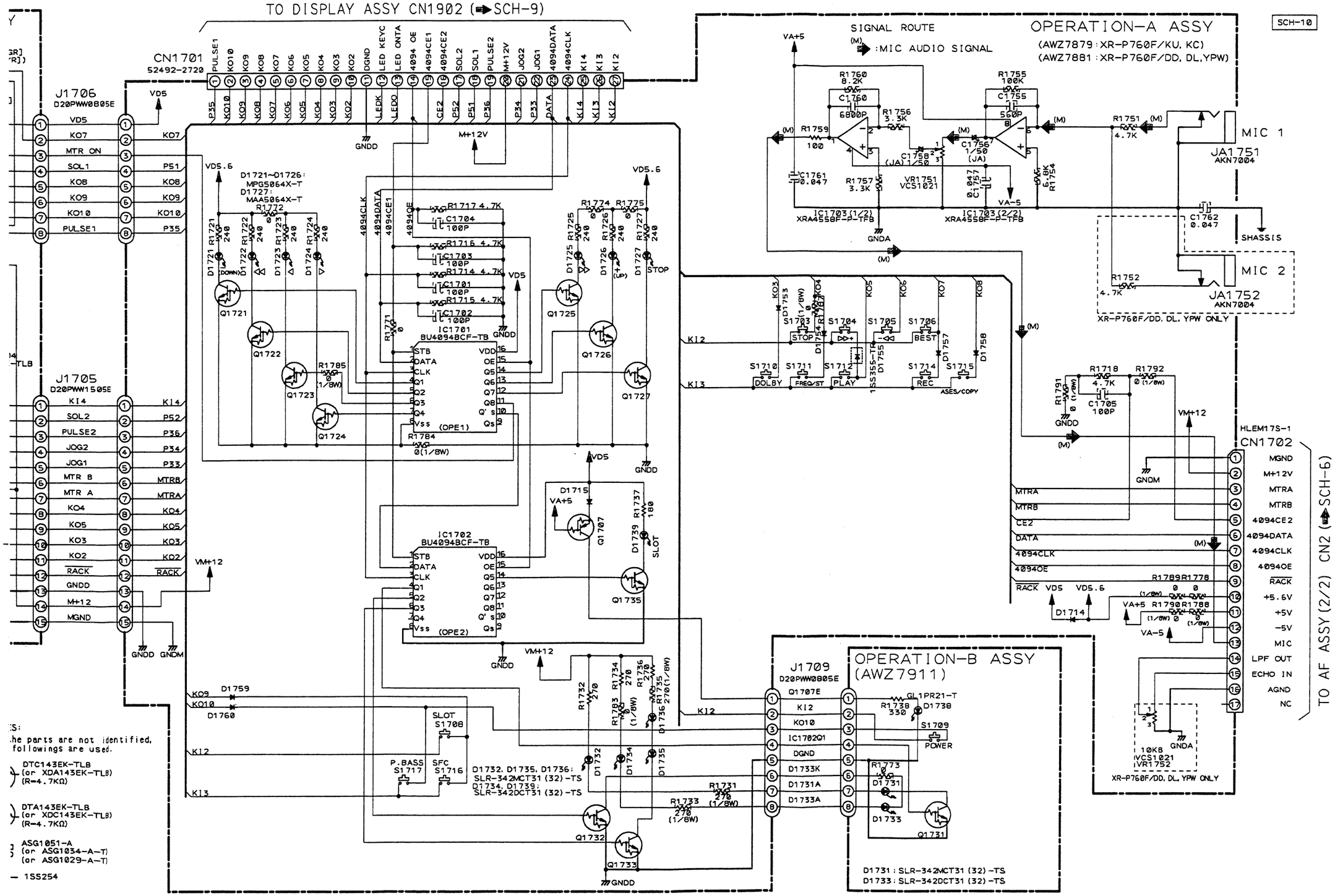

- This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.

## 3.9 OPERATION-A ASSY, OPERATION-B ASSY, DECK RELAY ASSY, JOG ASSY, DOOR SW ASSY AND MECHANISM UNIT




**SCH-10** OPERATION-A ASSY, OPERATION-B ASSY, DECK RELAY ASSY, JOG ASSY, DOOR SW ASSY, MECHANISM UNIT




S:
he parts are not identified,
followings are used.

DTC143EK-TLB
(or XDA143EK-TLB)
(R=4.7KΩ)

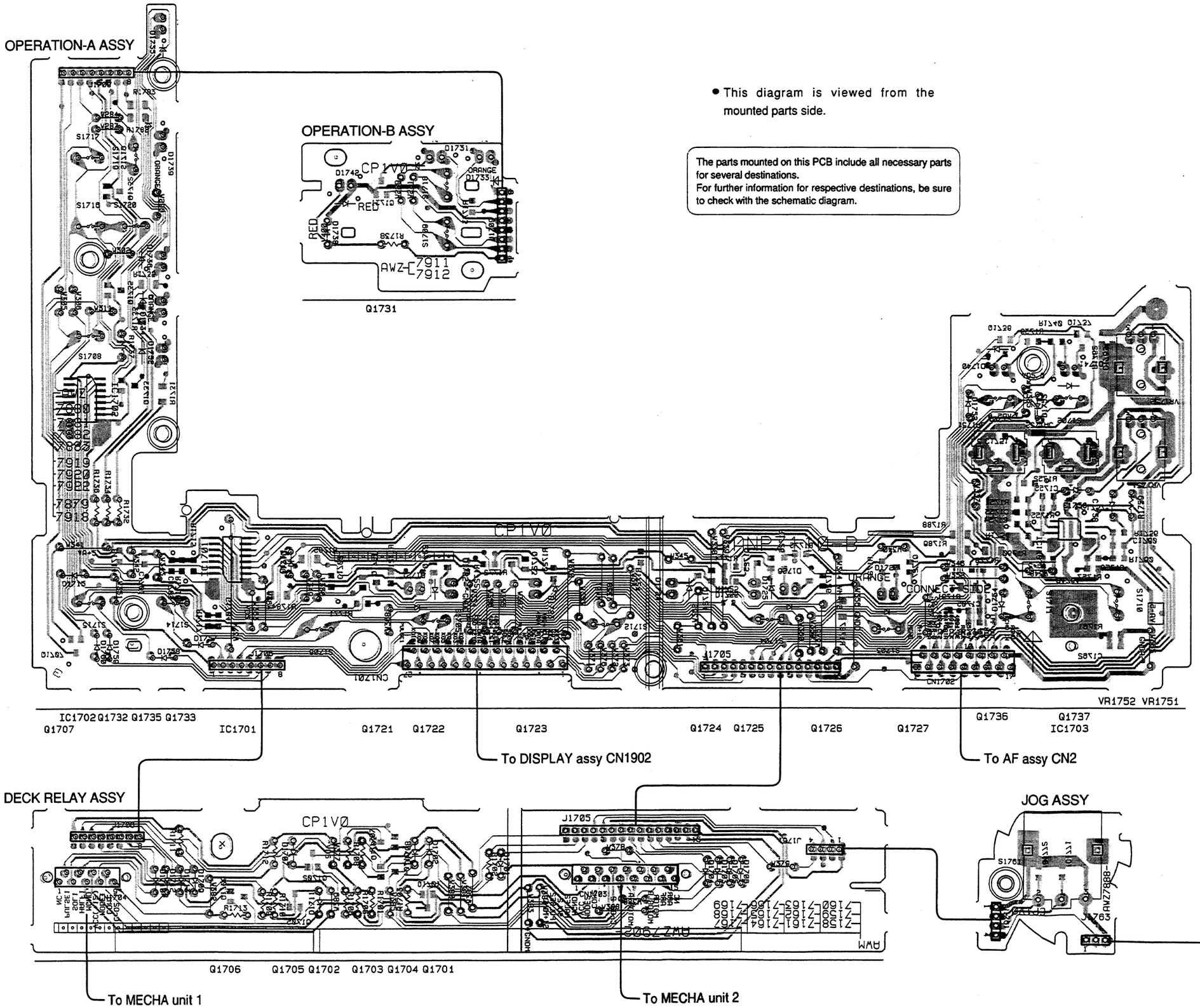
DTA143EK-TLB
(or XDC143EK-TLB)
(R=4.7KΩ)

ASG1051-A
(or ASG1034-A-T)
(or ASG1029-A-T)

— 1SS254

- This diagram is viewed from the mounted parts side.

The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.



# 4. PCB PARTS LIST

*NOTES :*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ! mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex. 1* *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

*560Ω → 56 x 10¹ = 561 ..... RD1/8PM 5 6 1 J*
*47kΩ → 47 x 10³ = 473 ..... RD1/4PS 4 7 3 J*
*0.5Ω → 0R5 ..... RN2H 0 R 5 K*
*1Ω → 010 ..... RS1P 0 1 0 K*

*Ex. 2* *When there are 3 effective digits (such as in high precision metal film resistors).*

*5.62kΩ → 562 x 10¹ = 5621 ..... RM1/4PC 5 6 2 1 F*

## ■ LIST OF WHOLE PCB ASSEMBLIES

| Mark | Symbol & Description | Part No. KU type | KC type | DD type | DL type | YPW type | Remarks |
|---|---|---|---|---|---|---|---|
| NSP | MAIN ASSY | AWK7206 | AWK7206 | AWK7208 | AWK7208 | AWK7214 | |
| | ├ AF ASSY | AWZ7886 | AWZ7886 | AWZ7846 | AWZ7846 | AWZ7846 | |
| | ├ VOL ASSY | AWZ7858 | AWZ7858 | AWZ7856 | AWZ7856 | AWZ7856 | *1 |
| | ├ SECONDARY ASSY | AWZ7864 | AWZ7864 | AWZ7863 | AWZ7863 | AWZ7864 | |
| NSP | └ TX CONNCT ASSY | AWZ8176 | AWZ8176 | AWZ8176 | AWZ8176 | AWZ8176 | |
| NSP | COMPLEX ASSY | AWM7158 | AWM7158 | AWM7160 | AWM7160 | AWM7161 | |
| | ├ DISPLAY ASSY | AWZ7869 | AWZ7869 | AWZ7871 | AWZ7871 | AWZ7871 | |
| | ├ OPERATION-A ASSY | AWZ7879 | AWZ7879 | AWZ7881 | AWZ7881 | AWZ7881 | |
| NSP | ├ DOOR SW ASSY | AWZ7887 | AWZ7887 | AWZ7887 | AWZ7887 | AWZ7887 | |
| | ├ JOG ASSY | AWZ7888 | AWZ7888 | AWZ7888 | AWZ7888 | AWZ7888 | |
| | ├ CD ASSY | AWZ7889 | AWZ7889 | AWZ7889 | AWZ7889 | AWZ7889 | |
| | ├ DECK RELAY ASSY | AWZ7902 | AWZ7902 | AWZ7902 | AWZ7902 | AWZ7902 | |
| NSP | ├ SUB TRANS ASSY | AWZ7908 | AWZ7908 | Not used | Not used | Not used | |
| NSP | ├ KUC ASSY | AWZ7909 | AWZ7909 | Not used | Not used | Not used | |
| | ├ OPERATION-B ASSY | AWZ7911 | AWZ7911 | AWZ7911 | AWZ7911 | AWZ7911 | |
| NSP | ├ HEADPHONE ASSY | AWZ7913 | AWZ7913 | AWZ7913 | AWZ7913 | AWZ7913 | |
| NSP | ├ HOME SW ASSY | AWZ7917 | AWZ7917 | AWZ7917 | AWZ7917 | AWZ7917 | |
| | ├ PRIMARY ASSY | Not used | Not used | AWZ7899 | AWZ7899 | AWZ7900 | |
| | └ YPW ASSY | Not used | Not used | Not used | Not used | AWZ7916 | |
| | FM/AM TUNER MODULE | AXQ1012 | AXQ1012 | AXQ1012 | AXQ1012 | AXQ1012 | |
| | POWER AMP MODULE | AXQ7017 | AXQ7017 | AXQ7017 | AXQ7017 | AXQ7017 | |
| | ├ FRONT 100W ASSY | AWZ7518 | AWZ7518 | AWZ7518 | AWZ7518 | AWZ7518 | |
| | └ REGULATOR ASSY | AWZ7520 | AWZ7520 | AWZ7520 | AWZ7520 | | |
| NSP | GM MECHA ASSY | AXA7026 | AXA7026 | AXA7026 | AXA7026 | AXA7026 | |
| NSP | ├ LO MECHANISM BOARD ASSY | AWX7013 | AWX7013 | AWX7013 | AWX7013 | AWX7013 | |
| NSP | ├ MECHA PCB ASSY | AWZ7835 | AWZ7835 | AWZ7835 | AWZ7835 | AWZ7835 | |
| NSP | ├ SENSOR PCB ASSY | AWZ7836 | AWZ7836 | AWZ7836 | AWZ7836 | AWZ7836 | |
| NSP | ├ MOTOR PCB ASSY | AWZ7837 | AWZ7837 | AWZ7837 | AWZ7837 | AWZ7837 | |
| NSP | ├ SW PCB ASSY | AWZ7838 | AWZ7838 | AWZ7838 | AWZ7838 | AWZ7838 | |
| NSP | └ SERVO MECHANISM ASSY GM | AXA7028 | AXA7028 | AXA7028 | AXA7028 | AXA7028 | |
| | └ MECHANISM BOARD ASSY | PWX1192 | PWX1192 | PWX1192 | PWX1192 | PWX1192 | |
| NSP | GM SLOT-IN MECHA ASSY | AXA7027 | AXA7027 | AXA7027 | AXA7027 | AXA7027 | |
| NSP | └ SL MECHANISM BOARD ASSY | AWX7014 | AWX7014 | AWX7014 | AWX7014 | AWX7014 | |
| NSP | ├ SENSOR BOARD ASSY | AWZ7839 | AWZ7839 | AWZ7839 | AWZ7839 | AWZ7839 | |
| NSP | ├ LED BOARD ASSY | AWZ7840 | AWZ7840 | AWZ7840 | AWZ7840 | AWZ7840 | |
| NSP | └ MOTOR BOARD ASSY | AWZ7841 | AWZ7841 | AWZ7841 | AWZ7841 | AWZ7841 | |

*Note *1: Although AWZ7858 and AWZ7856 are different in part number, they have the same service parts.*



## ■ PARTS LIST FOR XR-P760F/KU

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| **AF ASSY** | | | |
| SEMICONDUCTORS | | | |
| | IC2101 | | BU4052BCF |
| | IC4202 | | BU4066BCF |
| | IC2102, IC4521 | | BU4094BCF |
| | IC4421 | | CXA1101P |
| | IC1030 | | NJM78M05FA |
| | IC2201 | | PM0006A |
| | IC1502, IC1503, IC2103, IC4101, IC4301 | | XRA4558F-P |
| | Q1501, Q1502 | | 2SA1015 |
| | Q1051 | | 2SA1048 |
| | Q4352 | | 2SA1560 |
| | Q1005 | | 2SA965 |
| | Q2101 | | 2SB1197K |
| | Q1503, Q1504 | | 2SC1815 |
| | Q102 | | 2SC2235 |
| | Q4356 | | 2SC2240 |
| | Q1505, Q1506, Q4101, Q4102 | | 2SC2458 |
| | Q4203, Q4204, Q4305, Q4306 | | 2SC2458 |
| | Q4451–Q4455, Q4501, Q4502 | | 2SC2458 |
| | Q4301, Q4302 | | 2SC2878 |
| | Q4353, Q4354 | | 2SC4040 |
| | Q1403, Q4355 | | 2SD2144S |
| | Q4307, Q4308 | | 2SK373 |
| | Q4456, Q4521, Q4522 | | DTA124EK |
| | Q1508, Q4208 | | DTA143EK |
| | Q4351 | | DTC124EK |
| | Q2102, Q4207 | | DTC143EK |
| | D1021, D1022, D1027, D1031–D1033 | | 1SS254 |
| | D1171, D1523, D1903, D2101, D4201 | | 1SS254 |
| | D4301–D4306, D4310, D4401, D4402 | | 1SS254 |
| | D4551, D4552 | | 1SS254 |
| ! | D1003 | | D2SBA20 (B) |
| ! | D1001 | | D5SBA20 (B) |
| | D101 | | MTZJ2.7B |
| | D1023 | | MTZJ33B |
| | D1521, D1522 | | MTZJ4.7B |
| | D1151, D1152 | | MTZJ5.1B |
| | D1010 | | MTZJ7.5B |
| ! | D1007, D1008, D1036–D1039 | | S5688G |
| | D1040–D1042, D1044 | | S5688G |
| COILS AND FILTERS | | | |
| | L4301, L4302 | | LTA472J |
| | L4303, L4304 | | LTA822J |
| | F4401, F4402 | | RTF1209 |
| TRANSFORMERS | | | |
| | T4351 | | ATX-043 |
| CAPACITORS | | | |
| | C4361 (2000pF/630V) | | ACE1020 |
| | C1009 (0.01μF/150V) | | ACG1005 |
| | C1001, C1002 (4700μF/63V) | | ACH1249 |
| | C4319, C4320 | | CCCSL271K500 |
| | C4323, C4324 | | CCSQCH100D50 |
| | C1526–C1528, C4511, C4513 | | CCSQCH101J50 |
| | C1524, C1525 | | CCSQCH121J50 |
| | C4109, C4110 | | CCSQCH151J50 |
| | C4353 | | CCSQCH221J50 |
| | C4998, C4999 | | CCSQCH391J50 |
| | C4101, C4102 | | CCSQCH471J50 |
| | C4151, C4152, C4355 | | CCSQCH681J50 |
| | C4502 | | CCSQCH820J50 |
| | C4451, C4452 | | CEAS010M50 |
| | C1011 | | CEAS0R1M50 |
| | C1012, C1019, C4359, C4360, C4364 | | CEAS100M50 |
| | C4403–C4405, C4407, C4454 | | CEAS100M50 |
| | C1016, C4401, C4408 | | CEAS101M10 |
| | C1018 | | CEAS101M63 |
| | C1006 | | CEAS102M16 |
| | C1004 | | CEAS102M35 |
| | C1224 | | CEAS1R5M50 |
| | C1007, C4453 | | CEAS220M50 |
| | C1017, C1099 | | CEAS221M35 |
| | C1005 | | CEAS222M16 |
| | C1003 | | CEAS222M35 |
| | C1517, C1518, C4207, C4208 | | CEAS2R2M50 |
| | C4315, C4316, C4504 | | CEAS2R2M50 |
| | C4103, C4104, C4309, C4310 | | CEAS330M16 |
| | C4317, C4318 | | CEAS330M16 |
| | C4357 | | CEAS3R3M50 |
| | C2251, C2252, C4107, C4108 | | CEAS470M16 |
| | C1021 | | CEAS470M50 |
| | C2105, C2106, C4301, C4302 | | CEAS4R7M50 |
| | C1503, C1504 | | CEASR15M50 |
| | C1014 | | CEASR33M50 |
| | C1907 | | CEASR47M50 |
| | C4402, C4406 | | CEASR68M50 |
| | C4303, C4304 | | CEJA010M50 |
| | C1039 | | CFTXA105J50 |
| | C4512 | | CKCYB101K50 |
| | C4363 | | CKCYB222K500 |
| | C2202, C2203 | | CKSQYB102K50 |
| | C4352, C4354, C4503 | | CKSQYB103K50 |
| | C4209 | | CKSQYB122K50 |
| | C4411, C4412 | | CKSQYB152K50 |
| | C4313, C4314 | | CKSQYB182K50 |
| | C4501 | | CKSQYB223K50 |
| | C4307, C4308 | | CKSQYB273K50 |
| | C4305, C4306 | | CKSQYB333K50 |
| | C2201 | | CKSQYB562K50 |
| | C2204, C2206 | | CKSQYB822K50 |
| | C1301–C1304, C2120, C2121 | | CKSQYF104Z50 |
| | C2208–C2210 | | CKSQYF104Z50 |
| | C4409, C4410 | | CQMA103J50 |
| | C4358 | | CQMA123K250 |
| | C4356 | | CQMA153J50 |
| | C4362 | | CQMA562K400 |
| | C4105, C4106 | | CQMA682J50 |
| | C2205, C2207 | | CQMA683J50 |
| | C4311, C4312 | | CQMA823J50 |
| RESISTORS | | | |
| | VR1701 (2.2kΩ) | | PCP1025 |
| | VR4201–VR4204 (22kΩ) | | PCP1030 |
| | VR4301, VR4302 (4.7kΩ) | | RCP1139 |
| | VR4351, VR4352 (220kΩ) | | RCP1142 |
| | R4352 | | RD1/2PM102J |
| | R1160, R1162, R4353 | | RD1/2PM470J |
| | R102 | | RD1/2PM680J |
| | R4357 | | RD1/2PM6R8J |
| | R1002 | | RD1/4PM272J |
| | R1159, R1161 | | RD1/4PM680J |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | R1301, R1303 | | RD1/4PMF7R5J |
| | R1021 | | RD1/6PM102J |
| | R1003, R4112, R4325, R4326, R4416 | | RD1/6PM103J |
| | R4223, R4521–R4523 | | RD1/6PM222J |
| | R1151 | | RD1/6PM472J |
| | R4113, R4114, R4323, R4324 | | RD1/6PM820J |
| | R1223 | | RS1LMF332J |
| | R1023 | | RS3LMF220J |
| | R1007, R1017 | | RS3LMFR22J |
| | Other Resistors | | RS1/10S□□□J |
| OTHERS | | | |
| | | 12P CABLE HOLDER | 51063–1205 |
| | Y1 | BOARD-IN READ WIRE | ADX7039 |
| | JA2101 | PIN JACK 2P | AKB7043 |
| | CN2104 | SPEAKER TERMINAL 4P | AKE7017 |
| | CN4003 | 2P TOP POST | B2B–EH |
| | CN4002 | 3P TOP POST | B3B–EH |
| | CN4001 | 3P TOP POST | B3B–EH–R |
| | CN2 | 17P FFC CONNECTOR | HLEM17S–1 |
| | CN3 | 19P FFC CONNECTOR | HLEM19S–1 |
| | CN1 | 31P FFC CONNECTOR | HLEM31S–1 |
| | CN10 | 11P PLUG | KM200IB11 |
| | CN9 | 14P PLUG | KM200IB14 |
| | JA2103 | REMOTE CONTROL JACK | RKN1004 |
| | | PCB BINDER | VEF1040 |
| | JA2102 | PIN JACK 2P | VKB1050 |

## VOL ASSY

SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC1501 | | XRA4558F–P |

CAPACITORS

| | | | |
|---|---|---|---|
| | C1507, C1508, C1513, C1514 | | CEAS2R2M50 |
| | C1521, C1522 | | CEYA4R7M50 |
| | C1558, C1559 | | CKSQYB104K25 |
| | C1519, C1520 | | CKSQYB223K50 |
| | C1501 | | CKSQYF104Z50 |

RESISTORS

| | | | |
|---|---|---|---|
| | VR1501 (100kΩ–A5×2) | | ACX7015 |
| | Other Resistors | | RS1/10S□□□J |

OTHERS

| | | | |
|---|---|---|---|
| | CN1510 | 11P SOCKET | KP200IB11L |

## SECONDARY ASSY

SEMICONDUCTORS

| | | | |
|---|---|---|---|
| ⚠ | IC1001–IC1008 | | ICP–N50 |

## TX CONNECT ASSY

OTHERS

| | | | |
|---|---|---|---|
| | CN13 | 14P PLUG | KM200IB14 |
| | CN12 | 14P SOCKET | KP200IB14L |

## DISPLAY ASSY

SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC1901 | | PDG158A |
| | Q1901 | | 2SC2712 |
| | Q1904 | | DTA143EK |
| | Q1902, Q1903, Q1951–Q1955 | | DTC143EK |
| | D1901, D1902, D1905–D1907 | | 1SS254 |
| | D1971–D1980, D1983 | | 1SS254 |
| | D1903 | | 1SS355 |
| | D1951–D1960 | | SLR–342MCT31 |

COILS AND FILTERS

| | | | |
|---|---|---|---|
| | L1901 | | LAU220J |

SWITCHES AND RELAYS

| | | | |
|---|---|---|---|
| | S1901–S1913 | | ASG1051 |

CAPACITORS

| | | | |
|---|---|---|---|
| | C1903 (0.047F/5.5V) | | ACH1246 |
| | C1908 | | CEJA010M50 |
| | C1910 | | CEJA100M16 |
| | C1906 | | CEJA221M10 |
| | C1902 | | CEJA470M16 |
| | C1932, C1941 | | CKSQYB102K50 |
| | C1921, C1922 | | CKSQYB473K50 |
| | C1912 | | CKSQYF104Z50 |
| | C1901, C1904, C1905, C1911 | | CKSQYF473Z50 |

RESISTORS

| | | | |
|---|---|---|---|
| | R1937, R1938 | | RA15T473J |
| | R1913–R1916, R1931 | | RD1/6PM102J |
| | R1917 | | RD1/6PM222J |
| | R1909–R1912 | | RD1/6PM223J |
| | R1904 | | RD1/6PM393J |
| | R1902 | | RD1/6PM472J |
| | R1981–R1984, R1987–R1991 | | RS1/8S000J |
| | R1958, R1959 | | RS1/8S271J |
| | Other Resistors | | RS1/10S□□□J |

OTHERS

| | | | |
|---|---|---|---|
| | CN1902 | 31P FFC CONNECTOR | 9604S–27C |
| | V1901 | FL TUBE | AAV7021 |
| | | FL SPACER | AEB7047 |
| | | REMOTE RECEIVER UNIT | GP1U27X |
| | CN1901 | 31P FFC CONNECTOR | HLEM31S–1 |
| | | FL HOLDER | VNF1087 |
| | X1901 | | EFOEC8004A4 |

## OPERATION–A ASSY

SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC1701, IC1702 | | BU4094BCF |
| | IC1703 | | XRA4558F–P |
| | Q1707 | | DTA143EK |
| | Q1721 | | DTC124EK |
| | Q1722–Q1727, Q1732, Q1733, Q1735 | | DTC143EK |
| | D1714, D1715, D1753, D1754 | | 1SS254 |
| | D1757–D1760 | | 1SS254 |
| | D1755 | | 1SS355 |
| | D1727 | | MAA5064X |
| | D1721–D1726 | | MPG5064X |
| | D1734, D1739 | | SLR–342DCT31 |
| | D1732, D1735, D1736 | | SLR–342MCT31 |

SWITCHES AND RELAYS

| | | | |
|---|---|---|---|
| | S1703–S1706, S1708, S1710–S1712 | | ASG1051 |
| | S1714–S1717 | | ASG1051 |

# XR-P760F

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | **CAPACITORS** | | |
| | C1701–C1705 | | CCSQCH101J50 |
| | C1755 | | CCSQCH561J50 |
| | C1756, C1758 | | CEJA010M50 |
| | C1760 | | CKSQYB682K50 |
| | C1757, C1761, C1762 | | CKSQYF473Z50 |
| | **RESISTORS** | | |
| | VR1751 (10kΩ–B) | | VCS1021 |
| | R1759 | | RD1/6PM101J |
| | R1737 | | RD1/6PM181J |
| | R1732, R1734, R1736 | | RD1/6PM271J |
| | R1784, R1785, R1787–R1792 | | RS1/8S000J |
| | R1731, R1733, R1735 | | RS1/8S271J |
| | Other Resistors | | RS1/10S□□□J |
| | **OTHERS** | | |
| | CN1701 | FFC CONNECTOR 27P | 52492–2720 |
| | JA1751 | SR JACK | AKN7004 |
| | CN1702 | FFC CONNECTOR 17P | HLEM17S–1 |

## DOOR SW ASSY

**SWITCHES AND RELAYS**

| | | | |
|---|---|---|---|
| | S1762 | | PSG1012 |

## JOG ASSY

**SWITCHES AND RELAYS**

| | | | |
|---|---|---|---|
| | S1761 | | ASX1015 |
| | **CAPACITORS** | | |
| | C1771, C1772 | | CKSQYB223K50 |

## CD ASSY

**SEMICONDUCTORS**

| | | | |
|---|---|---|---|
| | IC8151 | | CXA1372Q |
| | IC8301 | | CXD2508AQ |
| | IC8203 | | LA6517 |
| | IC8201, IC8202 | | LA6520 |
| | IC8001 | | PD4664A |
| | IC8401 | | XRA4558F–P |
| | Q8401, Q8402 | | 2SD2114K |
| | Q8301 | | 2SK246 |
| | Q8302 | | DTA124EK |
| | Q8403, Q8404 | | DTA143EK |
| | D8001, D8002, D8301 | | 1SS254 |
| | D8401, D8402 | | DAN202K |
| | D8201 | | MTZJ6.2B |
| | **COILS AND FILTERS** | | |
| | L8321 | | LAU1R2J |
| | L8001 | | LAU220J |
| | **CAPACITORS** | | |
| | C8322 | | CCSQCH100D50 |
| | C8006, C8007, C8350, C8351 | | CCSQCH101J50 |
| | C8407–C8410 | | CCSQCH121J50 |
| | C8323 | | CCSQCH220J50 |
| | C8403–C8406 | | CCSQCH271J50 |
| | C8401, C8402 | | CCSQCH391J50 |
| | C8411, C8412 | | CEANP2R2M50 |
| | C8004 | | CEAS101M10 |
| | C8201, C8202, C8301 | | CEAS330M16 |
| | C8165, C8166 | | CEAS4R7M50 |
| | C8309 | | CEASR47M50 |
| | C8302, C8303 | | CGCYX104M16 |
| | C8162, C8321 | | CKSQYB102K50 |
| | C8152, C8157, C8160 | | CKSQYB103K50 |
| | C8306 | | CKSQYB152K50 |
| | C8352 | | CKSQYB223K50 |
| | C8161 | | CKSQYB332K50 |
| | C8151, C8159 | | CKSQYB333K50 |
| | C8163 | | CKSQYB472K50 |
| | C8002, C8003, C8307 | | CKSQYB473K50 |
| | C8164 | | CKSQYB561K50 |
| | C8045, C8158, C8203–C8209, C8261 | | CKSQYF103Z50 |
| | C8153–C8156, C8167, C8420, C8421 | | CKSQYF104Z50 |
| | **RESISTORS** | | |
| | VR8151, VR8152 (22kΩ) | | RCP1103 |
| | R8013–R8015 | | RD1/6PM102J |
| | R8210, R8211 | | RD1/6PM104J |
| | R8012 | | RD1/6PM472J |
| | R8020, R8021, R8024, R8030 | | RD1/6PM473J |
| | R8039 | | RD1/6PM563J |
| | R8901 | | RS1/8S000J |
| | R8017 | | RS1/8S102J |
| | Other Resistors | | RS1/10S□□□J |
| | **OTHERS** | | |
| | CN8001 | FFC CONNECTOR 19P | HLEM19S–1 |
| | CN8002 | FFC CONNECTOR 22P | HLEM22S–1 |
| | CN8201 | 6P SIDE POST | VKN–004 |
| | X8301 (33.8688MHz) | | ASS7000 |
| | X8001 (4.19MHz) | | VSS1014 |

## DECK RELAY ASSY

**SEMICONDUCTORS**

| | | | |
|---|---|---|---|
| | Q1702, Q1706 | | 2SA1162 |
| | Q1703 | | 2SB1197K |
| | Q1701, Q1705 | | 2SD1781K |
| | Q1704 | | DTC124EK |
| | D1701–D1713 | | 1SS254 |
| | **RESISTORS** | | |
| | All Resistors | | RD1/6PM□□□J |
| | **OTHERS** | | |
| | | 9P CABLE HOLDER | 51063–0905 |
| | | 15P CABLE HOLDER | 51063–1505 |

## SUB TRANS ASSY

**SEMICONDUCTORS**

| | | | |
|---|---|---|---|
| ⚠ | IC101 | | ICP–N10 |
| | D105, D106 | | MTZJ6.2B |
| | D101–D104 | | S5688G |
| | **COILS AND FILTERS** | | |
| ⚠ | L101 | | ATF1136 |
| | **TRANSFORMERS** | | |
| ⚠ | T101 | | ATT7016 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | **SWITCHES AND RELAYS** | | |
| ⚠ | RY101 | | ASR1027 |
| | **CAPACITORS** | | |
| ⚠ | C101 (0.01/400V) | | ACG1054 |
| | C103 | | CEAS102M25 |
| | **RESISTORS** | | |
| | R101 (2.2MΩ, 1/2W) | | ACN-208 |
| | **OTHERS** | | |
| | CN111 | 4P JUMPER CONNECTOR | 52147-0410 |
| | H101, H102 | FUSE CLIP | AKR1003 |
| | | TERMINAL | RKC-061 |
| | KN105 | EARTH METAL FITTING | VNF1084 |
| | **KUC ASSY** | | |
| | **OTHERS** | | |
| | Y112 | BOARD-IN READ WIRE | ADX7112 |
| | **OPERATION-B ASSY** | | |
| | **SEMICONDUCTORS** | | |
| | Q1731 | | DTC143EK |
| | D1738 | | GL1PR21 |
| | D1733 | | SLR-342DCT31 |
| | D1731 | | SLR-342MCT31 |
| | **SWITCHES AND RELAYS** | | |
| | S1709 | | ASG1051 |
| | **RESISTORS** | | |
| | R1738 | | RD1/6PM331J |
| | Other Resistors | | RS1/10S□□□J |
| | **HEADPHONE ASSY** | | |
| | **CAPACITORS** | | |
| | C1207, C1208 | | CEJA4R7M50 |
| | **RESISTORS** | | |
| | R1201, R1202 | | RS3LMF331J |
| | **OTHERS** | | |
| | | HEADPHONE JACK | AKN7003 |
| | **HOME SW ASSY** | | |
| | **SWITCHES AND RELAYS** | | |
| | S8001 | | DSG1048 |
| | **FM/AM TUNER MODULE** | | |
| | **SEMICONDUCTORS** | | |
| | IC6201 | | LA1836M |
| | IC6202 | | LM7001J |
| | Q6102 | | 2SC2223 |
| | Q6203 | | 2SC2235 |
| | Q6202 | | 2SC2712 |
| | Q6103, Q6214 | | 2SC2714 |
| | Q6201 | | 2SK208 |
| | Q6104 | | 2SK302 |
| | Q6101 | | 3SK194 |
| | Q6204 | | XDA124EK |
| | Q6217 | | XDC124EK |
| | D6101, D6102 | | 1T33 |
| | **COILS AND FILTERS** | | |
| | L6104 | | ATC1003 |
| | L6101 | | ATC1020 |
| | L6102 | | ATC1021 |
| | L6207 (10.7MHz) | | ATE1013 |
| | F6203, F6204 | | ATF-119 |
| | F6101 | | ATF-155 |
| | F6202 (450kHz) | | ATF1155 |
| | L6103 (2.2μH) | | ATH1043 |
| | L6202, L6203, L6208 | | LCTA2R2J3225 |
| | **TRANSFORMERS** | | |
| | T6101 | | ATE-063 |
| | **CAPACITORS** | | |
| | C6202, C6234, C6236 (1μF/16V) | | ACG1051 |
| | C6107 | | CCSCH010C50 |
| | C6229 | | CCSCH821J50 |
| | C6110 | | CCSQCH020C50 |
| | C6101 | | CCSQCH050C50 |
| | C6108, C6203, C6268 | | CCSQCH101J50 |
| | C6111, C6116, C6208, C6221, C6222 | | CCSQCH150J50 |
| | C6115 | | CCSQCH330J50 |
| | C6114 | | CCSQRH080D50 |
| | C6113 | | CCSQRH180J50 |
| | C6105 | | CCSQTH150J50 |
| | C6261 | | CEAS010M50 |
| | C6224, C6246, C6262 | | CEAS100M50 |
| | C6227 | | CEAS101M10 |
| | C6216, C6217 | | CEAS330M16 |
| | C6231, C6233 | | CEAS3R3M50 |
| | C6219 | | CEAS470M10 |
| | C6243-C6245 | | CEAS470M16 |
| | C6238 | | CEJA100M16 |
| | C6249, C6250 | | CEJA4R7M35 |
| | C6215 | | CFTXA103J50 |
| | C6214 | | CFTXA224J50 |
| | C6103, C6106, C6112, C6204 | | CKSQYB102K50 |
| | C6102, C6109, C6117, C6210, C6264 | | CKSQYB103K50 |
| | C6213 | | CKSQYB223K50 |
| | C6230 | | CKSQYB333K50 |
| | C6228, C6252 | | CKSQYB472K50 |
| | C6209, C6237, C6265, C6267 | | CKSQYB473K50 |
| | C6212, C6218 | | CKSQYF103Z50 |
| | C6220, C6226, C6239, C6242, C6255 | | CKSQYF223Z50 |
| | C6235 | | CKSQYF224Z25 |
| | C6225, C6241, C6266 | | CKSQYF473Z50 |
| | C6232 | | CKSYB333K50 |
| | C6251 | | CKSYB472K50 |
| | C6223 | | CKSYF103Z50 |
| | C6263 | | CKSYF473Z50 |
| | **RESISTORS** | | |
| | VR6201 (10kΩ) | | ACP1056 |
| | VR6202 | | VRTB6VS223 |
| | R6299, R6300 | | RD1/8PM102J |
| | R6113, R6116, R6118, R6268-R6271 | | RS1/8S000J |
| | R6275, R6276, R6278, R6283, R6284 | | RS1/8S000J |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| | R6290, R6293, R6294, R6297 | | RS1/8S000J |
| | R6243, R6244 | | RS1/8S101J |
| | R6211 | | RS1/8S103J |
| | R6237 | | RS1/8S182J |
| | R6209 | | RS1/8S221J |
| | R6239 | | RS1/8S332J |
| | R6101 | | RS1/8S470J |
| | Other Resistors | | RS1/10S□□□J |
| | **OTHERS** | | |
| | BN6201 | ANTENNA TERMINAL 4–P | AKA1016 |
| | CN6201 | 14P SOCKET | KP200IA14L |
| | X6203 (7.200MHz) | | ASS1042 |
| | X6201 (456KHz) | | ASS1066 |
| | X6202 (450kHz) | | ATF1027 |
| | | AM RF TUNING BLOCK | AXX1041 |

## FRONT 100W ASSY

### SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC7501 | | UPC4570G2 (5) |
| | Q7507, Q7508 | | 2SA1182 |
| | Q7601 | | 2SA1255 |
| | Q7501, Q7502 | | 2SC2240 |
| | Q7505, Q7506 | | 2SC2859 |
| | Q7602, Q7603 | | 2SC3138 |
| | D7505, D7506, D7517, D7518 | | 1SS181 |
| | D7503, D7504, D7516 | | 1SS184 |
| | D7535–D7538 | | 1SS226 |
| | D7521–D7524 | | 1SS244 |
| | D7519, D7520, D7525, D7526, D7531 | | HSS104–02 |
| | D7533 | | HSS104–02 |
| | D7507–D7510 | | RD3.3ESB2 |

### CAPACITORS

| | | | |
|---|---|---|---|
| | C7519–C7522, C7545–C7552 | | CCSQCH101J50 |
| | C7525–C7528 | | CCSQCH271J50 |
| | C7503, C7504 | | CCSQCH331J50 |
| | C7541, C7542 | | CCSQCH470J50 |
| | C7523, C7524 | | CEALR10M50 |
| | C7509, C7510 | | CEAS101M10 |
| | C7602 | | CEJA221M6R3 |
| | C7540 | | CEJA3R3M50 |
| | C7539 | | CEJA4R7M50 |
| | C7699 | | CKSQYB104K25 |
| | C7529–C7532 | | CKSQYB333K50 |
| | C7543, C7544 | | CKSQYB472K50 |
| | C7601, C7603 | | CKSQYF104Z50 |
| | C7537 | | CKSQYF473Z50 |

### RESISTORS

| | | | |
|---|---|---|---|
| | R7515, R7516 (1.8kΩ) | | ACN1107 |
| ⚠ | R7541, R7542 | | RD1/4PMF100J |
| | R7519, R7520 | | RN1/10SE621D |
| ⚠ | R7547–R7550 | | RS1/10S2200F |
| | R7753 | | RS1/8S000J |
| ⚠ | R7537–R7540 | | RS1/8S100J |
| | R7553 | | RS1/8S101J |
| ⚠ | R7543, R7544 | | RS1/8S7R5J |
| | Other Resistors | | RS1/10S□□□J |

| Mark | No. | Description | Parts No. |
|---|---|---|---|

## REGULATOR ASSY

### SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC7201 | | PAC006C |
| | Q7301, Q7302 | | 2SC1815 |
| | Q7202 | | 2SC2712 |
| | D7204 | | 1SS184 |
| | D7205, D7208 | | HSS104–02 |
| | D7210 | | RB441Q–40 |
| | D7206, D7211 | | RD4.7ESB |
| | D7207 | | RD5.6ESB2 |

### CAPACITORS

| | | | |
|---|---|---|---|
| | C7402, C7406, C7408 (0.082μF/25V) | | ACG1050 |
| | C7204 (1μF/16V) | | ACG1051 |
| | C7401, C7405, C7407 (0.33μF/50V) | | ACG1053 |
| | C7409 (10μF/35V) | | ACH1150 |
| | C7202 | | CEANL4R7M50 |
| | C7140 | | CEAS010M50 |
| | C7205 | | CEJA101M10 |
| | C7203 | | CEJAR33M50 |
| | C7697 | | CKDYB103K50 |
| | C7201, C7208, C7219 | | CKSQYB103K50 |
| | C7301 | | CKSQYB332K50 |
| | C7206, C7215, C7216, C7404, C7698 | | CKSQYF104Z50 |

### RESISTORS

| | | | |
|---|---|---|---|
| | VR7201 (22kΩ) | | RCP1103 |
| ⚠ | R7403–R7405 (1Ω) | | ACN1104 |
| | R7252 | | RD1/6PM102J |
| | R7253 | | RD1/6PM103J |
| | R7303 | | RS1/10S1002F |
| | R7304 | | RS1/10S8200F |
| | Other Resistors | | RS1/10SÅ†Å†Å†J |

### OTHERS

| | | | |
|---|---|---|---|
| | CN7101 | 12P JUMPER CONNECTOR | KPE12 |

## MECHA PCB ASSY (AWZ7835)

### SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | Q651 | | DTC124ES |
| | D651 | | VRPG5615S |

### RESISTORS

| | | | |
|---|---|---|---|
| | R652 (10kΩ) | | ACN7011 |
| | R651 (56kΩ) | | ACN7012 |
| | R653 (220Ω, 1/6W) | | DCN1062 |
| | R654 (0Ω) | | DCN1065 |

### OTHERS

| | | | |
|---|---|---|---|
| | CN652 | FPC CONNECTOR 12P | 12FMZ–AST |
| | CN651 | MT CONNECTOR 4P | 173979–4 |
| | CN653 | 22P FFC CONNECTOR | SLEM22R |

## SENSOR PCB ASSY (AWZ7836)

### SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | D652 | | GP1S24 |

### OTHERS

| | | | |
|---|---|---|---|
| | J652 | WIRE ASSY 3P | D20PWW0315E |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| **MOTOR PCB ASSY (AWZ7837)** | | | |
| OTHERS | | | |
| | | LOADING MOTOR | VXM1034 |
| **SW PCB ASSY** | | | |
| SWITCHES AND RELAYS | | | |
| | S651, S652 | | VSG1006 |
| OTHERS | | | |
| | J656 | WIRE ASSY 3P | D20PWW0315E |
| **MECHANISM BOARD ASSY (PWX1192)** | | | |
| SWITCHES AND RELAYS | | | |
| | S610 | | DSG1016 |
| OTHERS | | | |
| | CN610 | MT CONNECTOR 4P | 173979-4 |
| **SENSOR BOARD ASSY (AWZ7839)** | | | |
| SEMICONDUCTORS | | | |
| | Q601-Q603 | | PS3322 |
| RESISTORS | | | |
| | R604-R606 (6.8k Ω) | | ACN7010 |
| OTHERS | | | |
| | CN601 | 6P JUMPER CONNECTOR | 52151-0610 |
| **LED BOARD ASSY** | | | |
| SEMICONDUCTORS | | | |
| | D601-D603 | | AN329 |
| RESISTORS | | | |
| | R602 (390 Ω) | | ACN7007 |
| | R601 (560 Ω) | | ACN7009 |
| OTHERS | | | |
| | J601 | WIRE ASSY 3P | D20PWW0315E |
| **MOTOR BOARD ASSY (AWZ7841)** | | | |
| OTHERS | | | |
| | J602 | WIRE ASSY 3P | D20PWW03035E |

# ■ CONTRAST OF PCB ASSEMBLIES

## SECONDARY Assy

AWZ7864 and AWZ7863 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7864 | AWZ7863 | |
| ⚠ | IC1001-IC1008 | ICP-N50 | Not used | |

## DISPLAY Assy

AWZ7869 and AWZ7871 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7869 | AWZ7871 | |
| | D1985 | Not used | 1SS254 | |

## OPERATION-A Assy

AWZ7879 and AWZ7881 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | AWZ7879 | AWZ7881 | |
| | VR1752 ( 10k Ω-B) | Not used | VCS1021 | |
| | R1752 | Not used | RS1/10S472J | |
| | JA1752 | Not used | AKN7004 | |

# XR-P760F

## ■ PARTS LIST FOR DD, DL AND YPW TYPES

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| **AF ASSY (AWZ7846)** | | | |
| SEMICONDUCTORS | | | |
| | IC2101 | | BU4052BCF |
| | IC4202 | | BU4066BCF |
| | IC2102, IC4521 | | BU4094BCF |
| | IC4421 | | CXA1101P |
| | IC251 | | M65845FP |
| | IC1030 | | NJM78M05FA |
| | IC2201 | | PM0006A |
| | IC1502, IC1503, IC2103, IC4101, IC4301 | | XRA4558F-P |
| | Q1501, Q1502 | | 2SA1015 |
| | Q1051 | | 2SA1048 |
| | Q1002, Q1044, Q4352 | | 2SA1560 |
| | Q1005 | | 2SA965 |
| | Q2101 | | 2SB1197K |
| | Q1503, Q1504 | | 2SC1815 |
| | Q4356 | | 2SC2240 |
| | Q1505, Q1506, Q4101, Q4102 | | 2SC2458 |
| | Q4203, Q4204, Q4305, Q4306 | | 2SC2458 |
| | Q4451–Q4455, Q4501, Q4502 | | 2SC2458 |
| | Q4301, Q4302 | | 2SC2878 |
| | Q1003, Q1042, Q4353, Q4354 | | 2SC4040 |
| | Q1403, Q4355 | | 2SD2144S |
| | Q4307, Q4308 | | 2SK373 |
| | Q4456, Q4521, Q4522 | | DTA124EK |
| | Q1004, Q1041, Q1508, Q4208 | | DTA143EK |
| | Q4351 | | DTC124EK |
| | Q1001, Q1043, Q2102, Q4207 | | DTC143EK |
| | D1021, D1022, D1027, D1031–D1033 | | 1SS254 |
| | D1171, D1523, D1903, D2101, D4201 | | 1SS254 |
| | D4301–D4306, D4310, D4401, D4402 | | 1SS254 |
| | D4551, D4552 | | 1SS254 |
| ⚠ | D1003 | | D2SBA20 (B) |
| ⚠ | D1001 | | D5SB20F |
| | D1023 | | MTZJ33B |
| | D1521, D1522 | | MTZJ4.7B |
| | D1151, D1152, D201 | | MTZJ5.1B |
| | D1010 | | MTZJ7.5B |
| ⚠ | D1007, D1008, D1036–D1039 | | S5688G |
| | D1040, D1041, D1044 | | S5688G |
| COILS AND FILTERS | | | |
| | L4301, L4302 | | LTA472J |
| | L4303, L4304 | | LTA822J |
| | F4401, F4402 | | RTF1209 |
| TRANSFORMERS | | | |
| | T4351 | | ATX-043 |
| CAPACITORS | | | |
| | C4361 (2000pF/630V) | | ACE1020 |
| | C1009 (0.01 μ F/150V) | | ACG1005 |
| | C1001, C1002 (4700 μ F/63V) | | ACH7007 |
| | C4319, C4320 | | CCCSL271K500 |
| | C4323, C4324 | | CCSQCH100D50 |
| | C1526–C1528, C271, C4511, C4513 | | CCSQCH101J50 |
| | C1524, C1525 | | CCSQCH121J50 |
| | C4109, C4110 | | CCSQCH151J50 |
| | C4353 | | CCSQCH221J50 |
| | C4998, C4999 | | CCSQCH391J50 |
| | C4101, C4102 | | CCSQCH471J50 |
| | C4151, C4152, C4355 | | CCSQCH681J50 |
| | C4502 | | CCSQCH820J50 |
| | C257 | | CEANP010M50 |
| | C251, C4451, C4452 | | CEAS010M50 |
| | C1011 | | CEAS0R1M50 |
| | C1012, C1019, C4359, C4360, C4364 | | CEAS100M50 |
| | C4403–C4405, C4407, C4454 | | CEAS100M50 |
| | C1016, C259, C4401, C4408 | | CEAS101M10 |
| | C1018 | | CEAS101M63 |
| | C1006 | | CEAS102M16 |
| | C1004 | | CEAS102M35 |
| | C1224 | | CEAS1R5M50 |
| | C1007, C4453 | | CEAS220M50 |
| | C1017, C1099 | | CEAS221M35 |
| | C1005 | | CEAS222M16 |
| | C1003 | | CEAS222M35 |
| | C1517, C1518, C269, C4207, C4208 | | CEAS2R2M50 |
| | C4315, C4316, C4504 | | CEAS2R2M50 |
| | C4103, C4104, C4309, C4310 | | CEAS330M16 |
| | C4317, C4318 | | CEAS330M16 |
| | C256 | | CEAS331M10 |
| | C4357 | | CEAS3R3M50 |
| | C2251, C2252, C4107, C4108 | | CEAS470M16 |
| | C1021 | | CEAS470M50 |
| | C2105, C2106, C4301, C4302 | | CEAS4R7M50 |
| | C1503, C1504 | | CEASR15M50 |
| | C1014 | | CEASR33M50 |
| | C1907 | | CEASR47M50 |
| | C4402, C4406 | | CEASR68M50 |
| | C4303, C4304 | | CEJA010M50 |
| | C1039 | | CFTXA105J50 |
| | C4512 | | CKCYB101K50 |
| | C4363 | | CKCYB222K500 |
| | C2202, C2203 | | CKSQYB102K50 |
| | C4352, C4354, C4503 | | CKSQYB103K50 |
| | C265, C266 | | CKSQYB104K25 |
| | C4209 | | CKSQYB122K50 |
| | C4411, C4412 | | CKSQYB152K50 |
| | C4313, C4314 | | CKSQYB182K50 |
| | C4501 | | CKSQYB223K50 |
| | C4307, C4308 | | CKSQYB273K50 |
| | C4305, C4306 | | CKSQYB333K50 |
| | C260 | | CKSQYB473K25 |
| | C2201, C252, C264 | | CKSQYB562K50 |
| | C253, C261 | | CKSQYB563K25 |
| | C263, C275 | | CKSQYB683K25 |
| | C2204, C2206 | | CKSQYB822K50 |
| | C1301–C1304, C2120, C2121 | | CKSQYF104Z50 |
| | C2208–C2210, C258 | | CKSQYF104Z50 |
| | C4409, C4410 | | CQMA103J50 |
| | C4358 | | CQMA123K250 |
| | C4356 | | CQMA153J50 |
| | C254, C262 | | CQMA224J50 |
| | C4362 | | CQMA562K400 |
| | C4105, C4106 | | CQMA682J50 |
| | C2205, C2207 | | CQMA683J50 |
| | C4311, C4312 | | CQMA823J50 |

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| RESISTORS | | | |
| | VR1701 (2.2k Ω) | | PCP1025 |
| | VR4201–VR4204 (22k Ω) | | PCP1030 |
| | VR4301, VR4302 (4.7k Ω) | | RCP1139 |
| | VR4351, VR4352 (220k Ω) | | RCP1142 |
| | R4352 | | RD1/2PM102J |
| | R267 | | RD1/2PM161J |
| | R1160, R1162, R4353 | | RD1/2PM470J |
| | R1044 | | RD1/2PM561J |
| | R4357 | | RD1/2PM6R8J |
| | R1153 | | RD1/4PM102J |
| | R1042 | | RD1/4PM182J |
| | R1002 | | RD1/4PM272J |
| | R1157 | | RD1/4PM472J |
| | R1159, R1161 | | RD1/4PM680J |
| | R1301, R1303 | | RD1/4PMF7R5J |
| | R1021 | | RD1/6PM102J |
| | R1003, R4112, R4325, R4326, R4416 | | RD1/6PM103J |
| | R4223, R4521–R4523 | | RD1/6PM222J |
| | R1151 | | RD1/6PM472J |
| | R4113, R4114, R4323, R4324 | | RD1/6PM820J |
| | R1223 | | RS1LMF222J |
| | R1023 | | RS3LMF220J |
| | R1007, R1017 | | RS3LMFR22J |
| | Other Resistors | | RS1/10S□□□J |
| OTHERS | | | |
| | | 12P CABLE HOLDER | 51063–1205 |
| | Y1 | | ADX7039 |
| | JA2101 | 2P PIN JACK | AKB7043 |
| | CN2104 | SPEAKER TERMINAL 4P | AKE7017 |
| | CN4003 | 2P TOP POST | B2B–EH |
| | CN4002 | 3P TOP POST | B3B–EH |
| | CN4001 | 3P TOP POST | B3B–EH–R |
| | CN2 | 17P FFC CONNECTOR | HLEM17S–1 |
| | CN3 | 19P FFC CONNECTOR | HLEM19S–1 |
| | CN1 | 31P FFC CONNECTOR | HLEM31S–1 |
| | CN10 | 11P PLUG | KM200IB11 |
| | CN9 | 14P PLUG | KM200IB14 |
| | JA2103 | REMOTE CONTROL JACK | RKN1004 |
| | | PCB BINDER | VEF1040 |
| | JA2102 | 2P PIN JACK | VKB1050 |

## PRIMARY ASSY (AWZ7899)

| | | | |
|---|---|---|---|
| COILS AND FILTERS | | | |
| ⚠ | L1101 | | ATF–151 |
| CAPACITORS | | | |
| ⚠ | C1101 ( 0.01/AC250) | | ACG7005 |
| OTHERS | | | |
| | H1101–H1106 | FUSE CLIP | AKR1003 |

## PRIMARY ASSY (AWZ7900)

| | | | |
|---|---|---|---|
| COILS AND FILTERS | | | |
| ⚠ | L1101 | | ATF–151 |
| CAPACITORS | | | |
| ⚠ | C1101 ( 0.01/AC400) | | ACG1054 |
| OTHERS | | | |
| | H1105, H1106 | FUSE CLIP | AKR1003 |

# 5. ADJUSTMENTS

## 5.1 TUNER SECTION

### ■ FM Tuner Section

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 1–1.

| Step No. | Adjustment Title | FM SG (1kHz, ±75kHz dev.) | | Reception Frequency Display | Adjustment Location | Specifications |
|---|---|---|---|---|---|---|
| | | Frequency (MHz) | Level (dBμV) | | | |
| 1 | Center Adjustment | 98 Non modulation | 80 or more | — | L6207 | Adjust so that the DC voltage between IC6201-Pin 4 and Pin 28 (or ⊕ leads of C6224 and C6261) becomes 0V±50mV. |
| 2 | Front End Sencitivity | 98 | 10-30 | 98MHz | L6102 T6101 | Adjust so that the DC voltage between the IC6201-Pin 12 and GND (or ⊕ leads of C6238 and GND) becomes at maximum level. |
| 3 | Stereo Distortion | 98 | 80 | 98MHz | T6101 | Minimize the distortion with 1/8 rotation of the core. |
| 4 | TUNED IND. Lighting Level | 98 | 15±2 | 98MHz | VR6201 | Adjust so that the indicator of TUNED IND. starts to light up. |

*Notes:*

- *Before adjusting, make sure there is no gap between L6101 and L6102. If there is a gap between them, bring them into contact with each other first, and then make adjustments.*
- *Make indicator adjustments in order of AM →FM.*

### ■ AM Tuner Section

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 1–1.

| Step No. | Adjustment Title | AM SG (400Hz, 30% Mod.) | | Reception Frequency Display | Adjustment Location | Specifications |
|---|---|---|---|---|---|---|
| | | Frequency (kHz) | Level (dBμV/m) | | | |
| 1 | TUNED IND. Lighting Level | 999 | 47±2 | 999kHz*1 | VR6202 | Adjust so that the indicator of TUNED IND. starts to light up. |

*1: For the area using 10kHz step, frequencies should be 1000 kHz

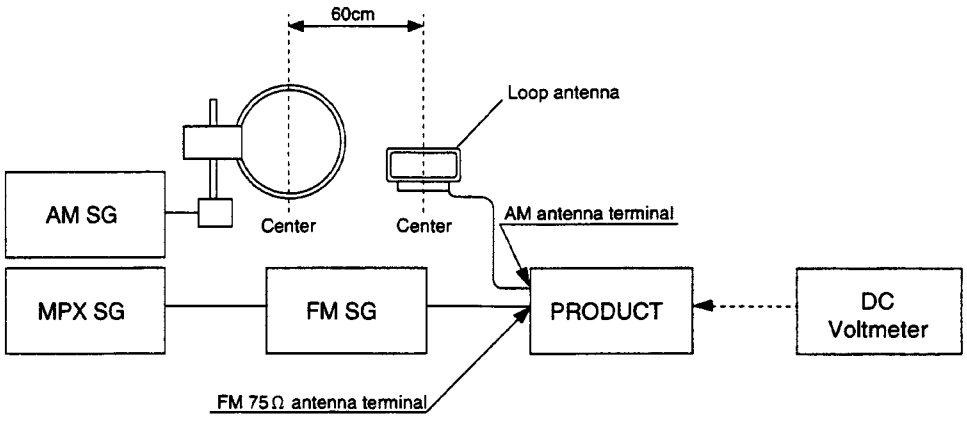



Fig. 1–1 AM and FM Adjustment Wiring Diagram

FM/AM TUNER MODULE (AXQ1012)

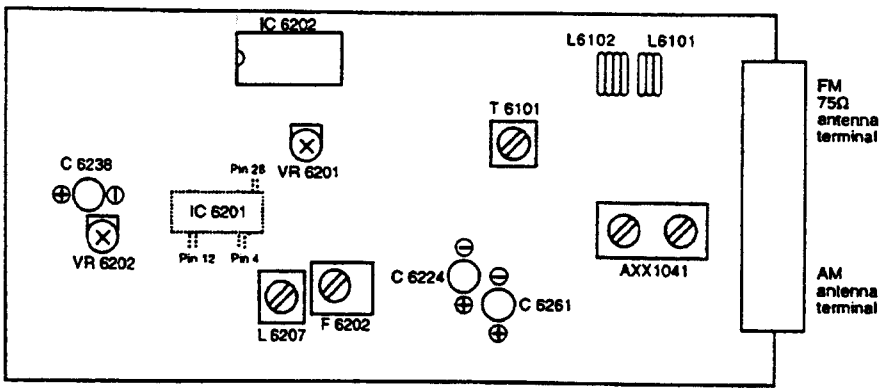


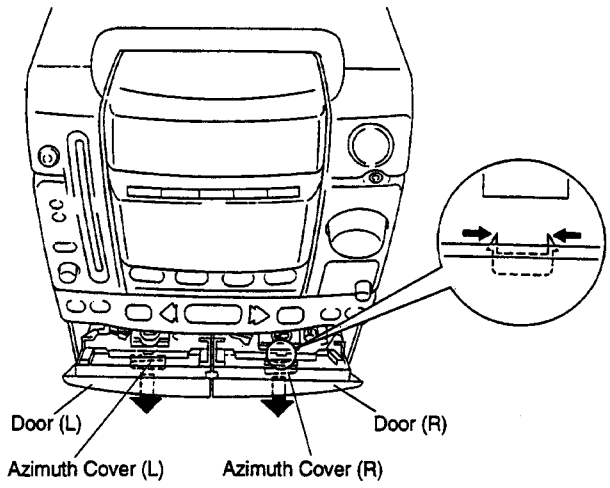

Fig. 1–2 Adjustment Points

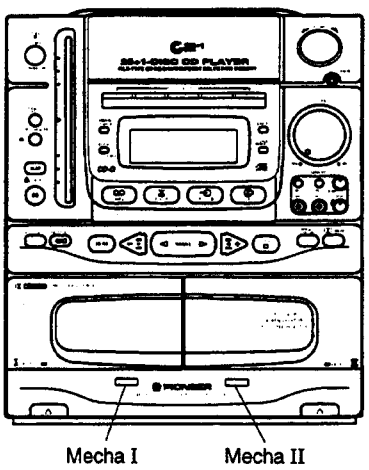
## 5.2 CASSETTE DECK SECTION

● Adjustment points and test points are shown in Fig. 2-3 and Fig. 2-4.

### ■ Before Adjustment

1. For execution of head angle adjustment, first remove the azimuth covers (L) and (R).
2. Open the cassette doors (L) and (R).
3. Insert your fingers into the cassette door, push down the two hooks at the upper side of the azimuth cover, and push them slightly out to the front. Excessive pushing at this time may make it impossible to close the cassette door.
4. Confirm that the azimuth covers (L) and (R) have been pushed out a little to the front, and then close the cassette doors (L) and (R) and remove the azimuth covers.




### ■ Mechanical Adjustment

● Test tape: STD-301 (3kHz, 30min).

1. Tape Speed Adjustment

| No. | Mode | Test Tape | Adjusting Points | Measurement Points | Adjustment Procedure | Remarks |
|---|---|---|---|---|---|---|
| 1 | Deck I PLAY | STD-301 (Playback: 3kHz) | AF Assy VR1701 | TAPE TEST POINT (Rch) (AF Assy) | Press the PLAY SW and adjust so that the reading becomes 3000Hz ±20Hz. Confirm that wow & flutter level is below 0.2% (in the reverse direction, confirm that the reading is within 3000Hz ±60Hz). | |

## ■ Electrical Adjustment

Check the following before starting.

1. Confirm that the tape speed adjustment has been completed.
2. Clean the heads and demagnetize them using a head eraser.
3. Set the measurement level to 0 dBV = 1 Vrms.
4. Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
   STD-331E: For playback adjustment
   STD-631or STD-632: Normal blank tape
5. Provide yourself with the following measuring devides:
   - AC millivoltmeter
   - Low-frequency oscillator
   - Attenuator
   - Oscilloscope
6. Adjust both right and left channels unless otherwise specified.
7. Turn the DOLBY NR switch off unless otherwize specified.
8. Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
9. Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

Playback Adjustment (Decks I and II)

1. Head Azimuth Adjustment
2. Playback Level Adjustment

Recording Adjustment (Deck II)

1. Bias Oscillation Frequency Adjustment
2. Recording Bias Adjustment
3. Recording Level Adjustment.
4. ALC Operation Check

* *As the reference recording level is 250nwb/m for STD-331E, the recording level will be higher by 4 dB for STD-331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.*

*Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
*"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

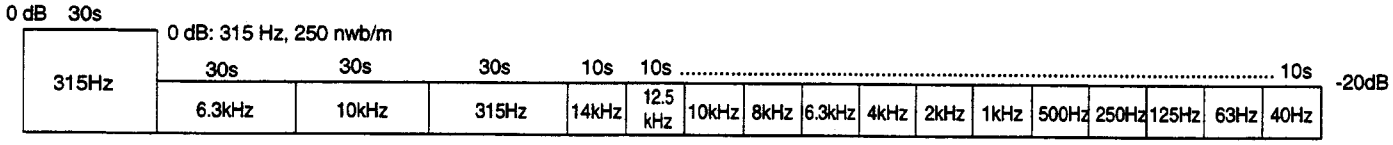



Fig. 2–1 STD-331E Test Tape

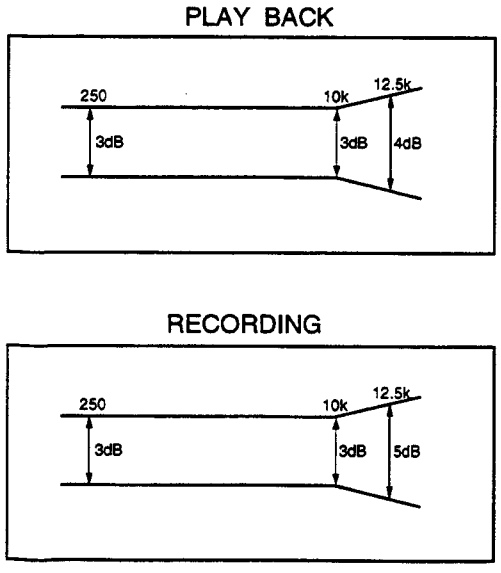



Fig. 2–2 Frequency Characteristics

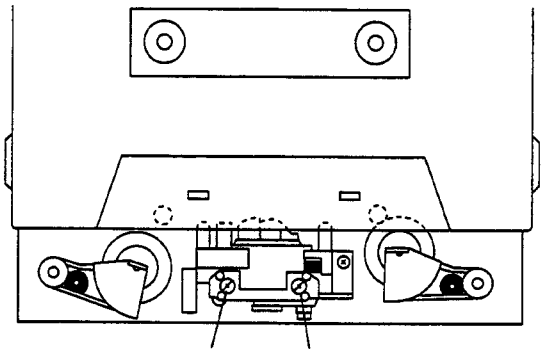



Fig. 2–3 Head Azimuth Adjustment

## ■ Playback Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

### 1. Head Azimuth Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | PLAY | STD-331E test tape (Playback: 10kHz, -20dB) | Deck I | Head azimuth adjustment screw (Fig. 2-3) | TAPE TEST POINT (L, Rch) (AF Assy) | Max. playback signal level | After adjustment, apply silicon bond to the head azimuth adjustment screw. |
| | | | | Deck II | | | | |

### 2. Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | PLAY | STD-331E test tape (Playback: 315Hz, 0dB) | Deck I | VR4203 (Lch) VR4204 (Rch) | TAPE TEST POINT (L, Rch) (AF Assy) | - 4.2 dBV | |
| | | | | Deck II | VR4201 (Lch) VR4202 (Rch) | | | |

*Note: Please execute playback level adjustment always in the order of deck I → deck II. When deck I has been adjusted, always adjust deck II also.*

## ■ Recording Adjustment

### 1. Bias Oscillation Frequency Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/ Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Load the STD-631 or STD-632 test tape and set the recording mode. | Deck I | ———— | ———— | Oscillation frequency to be 105.0kHz ±2kHz. | When the power is turned ON while the MEMORY button is depressed, the frequency will decrease 2 – 3 kHz. |
| | | | | Deck II | T4351 | Between Ⓐ point in Fig. 2-4 and GND. | | |

### 2. Recording Bias Adjustment

- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the AUX/ CD II terminal and set the input selector to AUX/CD II. | Deck I | —— | TAPE TEST POINT (L, Rch) (AF Assy) | - 25.2 dBV | |
| | | | | Deck II | Input signal level | | | |
| 2 | NORMAL | REC→ PLAY | Load the STD-631 or STD-632 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below) | Deck I | —— | TAPE TEST POINT (L, Rch) (AF Assy) | Repeat adjustment until playback level of the 10kHz signal is within 0±0.5dB from that of the 315Hz signal. | |
| | | | | Deck II | VR4351 (Lch) VR4352 (Rch) | | | |

*Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.*

## 3. Recording Level Adjustment

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the AUX/CD II terminal and set the input selector to AUX/CD II. | Deck I<br>Deck II | Input signal level | TAPE TEST POINT (L, Rch) (AF Assy) | – 8.2 dBV | |
| 2 | NORMAL | REC → PLAY | STD-631 or STD-632 test tape and record/playback the 315Hz signal. | Deck I | —— | TAPE TEST POINT (L, Rch) (AF Assy) | Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes -8.2dBV. | |
| | | | | Deck II | VR4301 (Lch)<br>VR4302 (Rch) | | | |

## 4. ALC Operation Check

| Step | Tape Selector (AUTO) | Mode | Input Signal/Test Tape | Adjusting Points | Measurement Points | Adjustment Value | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | NORMAL | REC | Input a 315Hz signal to the AUX/CD II terminal and set the input selector to AUX/CD II. | Input signal level | TAPE TEST POINT (L, Rch) (AF Assy) | – 8.2 dBV | |
| 2 | | | | Set to a level +10 dB above the input level at step 1. | | Confirm that the reading is –3.2±2.5dBV. | |

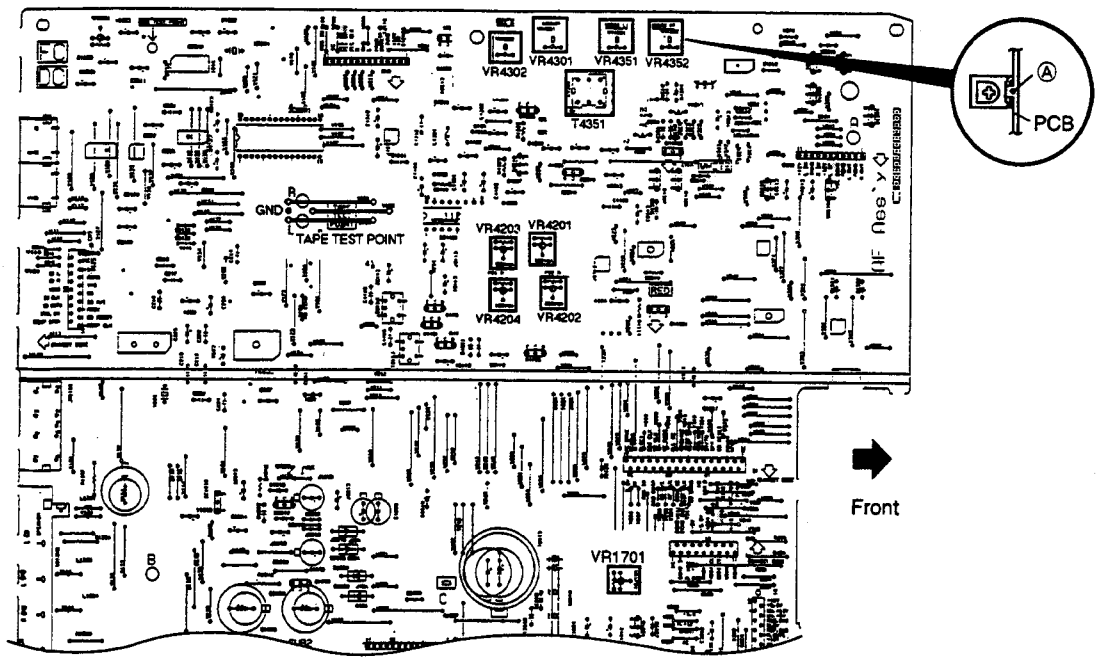



Fig. 2–4 Adjustment and Measurement points

## 5.3 POWER AMP MODULE SECTION (Refer to Fig . 3–1.)

### 1. Handling Precautions

- Since the heat sink and transistor metallic parts are connected to the Front Amp output, make sure they do not contact the GND (chassis) or other circuits.
- Since there is residual high voltage in the Power Amp Module ±B1 (FRONT 100W ASSY) and ±B2 (REGULATOR ASSY) even when the power is OFF, caution should be exercised. (If necessary, the voltage should be discharged).
- When handling the Power Amp Module, make sure you do not touch the fan motor blade.

### 2. Adjustment and Confirmation of Idle Current

- Basically, the idle current needs to be confirmed when replacing a power transistor, driver transistor, or bias transistor, or when the entire split board Assy of the Power Amp Module has been replaced.
- Make sure the heat sink has cooled sufficiently before measuring the idle current. (Temperature should be the same as room temperature; 25°C is ideal, if possible.)
- Idle current stipulated value: 3–100mA.

### ■ Front Amp Side (FRONT 100W ASSY)

| Step | Measurement | Item | Remarks |
|---|---|---|---|
| 1 | Lch side | Insert a resistor (0.22 Ω, 3W or more) in series in the connector CN7502 +B1 (or–B1) line (terminal No. 5 or 6). (Refer to Fig. 3–2.) | For measuring voltage at both sides of resistor |
| 2 | | Short both sides of C7524. | Do not operate Rch side. |
| 3 | | Turn the power ON, wait 6 seconds, and then measure the resistance voltage in Step 1. | Lch Idle current I=V/0.22 ( Ω ) |
| 4 | Rch side | • Same as Step 1 above.<br>• Short both sides of C7523. | Do not operate Lch side. |
| 5 | | Turn the power ON under the above conditions, and after 6 seconds measure the resistance voltage in Step 1. | |
| 6 | —— | If the measured idle current is greater than 100mA, perform the following procedure. | |
| 7 | Lch side | Short between the Point Ⓐ pattern in Fig. 3–3 using solder. | Connect R7517 to R7515 in a parallel circuit. |
| 8 | Rch side | Short between the Point Ⓑ pattern in Fig. 3–3 using solder. | Connect R7518 to R7516 in a parallel circuit. |
| 9 | —— | After performing Steps 7 and 8, remeasure the idle current and confirm that it is below 100mA. | |
| 10 | —— | If the idle current is below 3mA, perform the following procedure. | |
| 11 | Lch side | Short between the point Ⓒ pattern in Fig.3–3 using solder. | Connect R7551 to R7519 in a parallel circuit. |
| 12 | Rch side | Short between the point Ⓓ pattern in Fig.3–3 using solder. | Connect R7552 to R7520 in a parallel circuit. |
| 13 | —— | After performing step 11 and 12, remeasure the idle current and confirm that it is greater than 3mA (within 3–100mA). | |

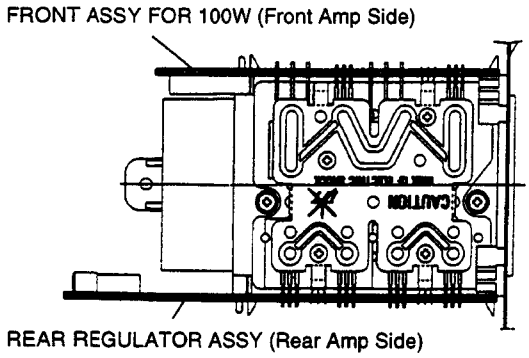



Fig. 3-1 PCB Location of Power Amp Module

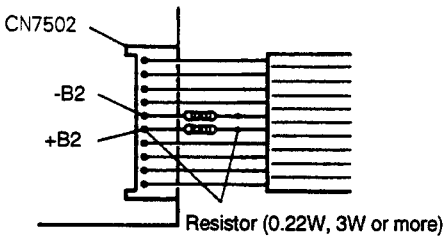



Fig. 3-2 FRONT 100W ASSY

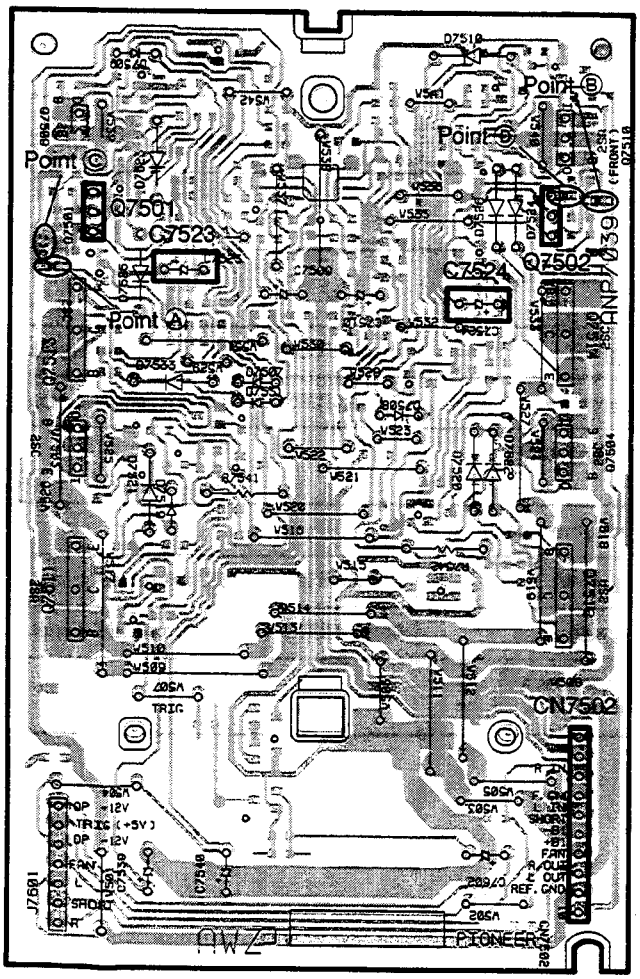



Fig. 3-3 FRONT 100W ASSY

## 3. Adjusting the Operating Temperature Setting of the Fan Motor (VR7201)

This adjustment is necessary when IC7401 (+12V regulator), Q7301 and Q7302 (temperature sensors), IC7201 (protection IC) or VR7201 has been replaced, or when the entire split board Assy of the Power Amp Module has been replaced.

### ■ Adjustment-Related Cautions

- Make sure the heat sink has sufficiently cooled (is the same as room temperature Ta.)
- Once the power has been turned ON, make measurements and adjustments as quickly as possible. (If too much time is taken, the heat sink temperature will rise, and the measurements will deviate from the Ta measurement point.)

### ■ Adjustment

1. Connect a voltmeter between VTEMP and VL (or between IC7201 terminals No.9 and 7). (Refer to Fig. 3–4.)
2. Determine the fan motor operating temperature setting by means of the following formula. (Tolerance is within ±30mV.)
   Formula: (75°C – Ta) X 19 (mV)
   Ta: ambient temperature (°C)
3. Adjust VR7201 so that the voltage between VTEMP and VL is the value obtained from the above formula.
   For example:
   when the room temperature is 25°C,
   set value = (75 – 25) X 19 (mV)
   = 950mV (tolerance within ±30mV).

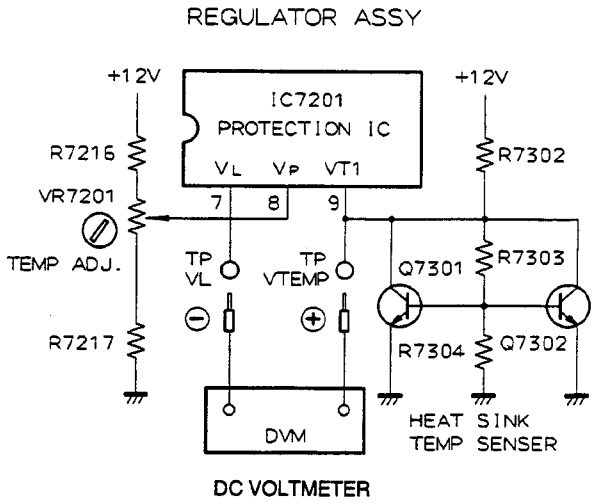
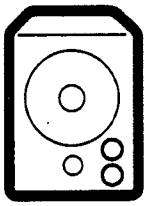
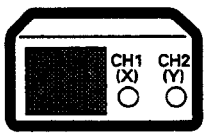
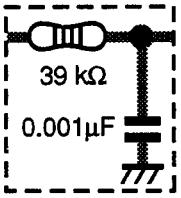



Fig. 3-4 Adjustment of Operating Temperature Setting of Fan Motor

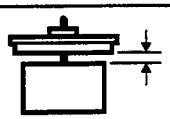
## 5.4 CD SECTION (CD部の調整)

### 1. PREPARATIONS (準備)

#### 1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

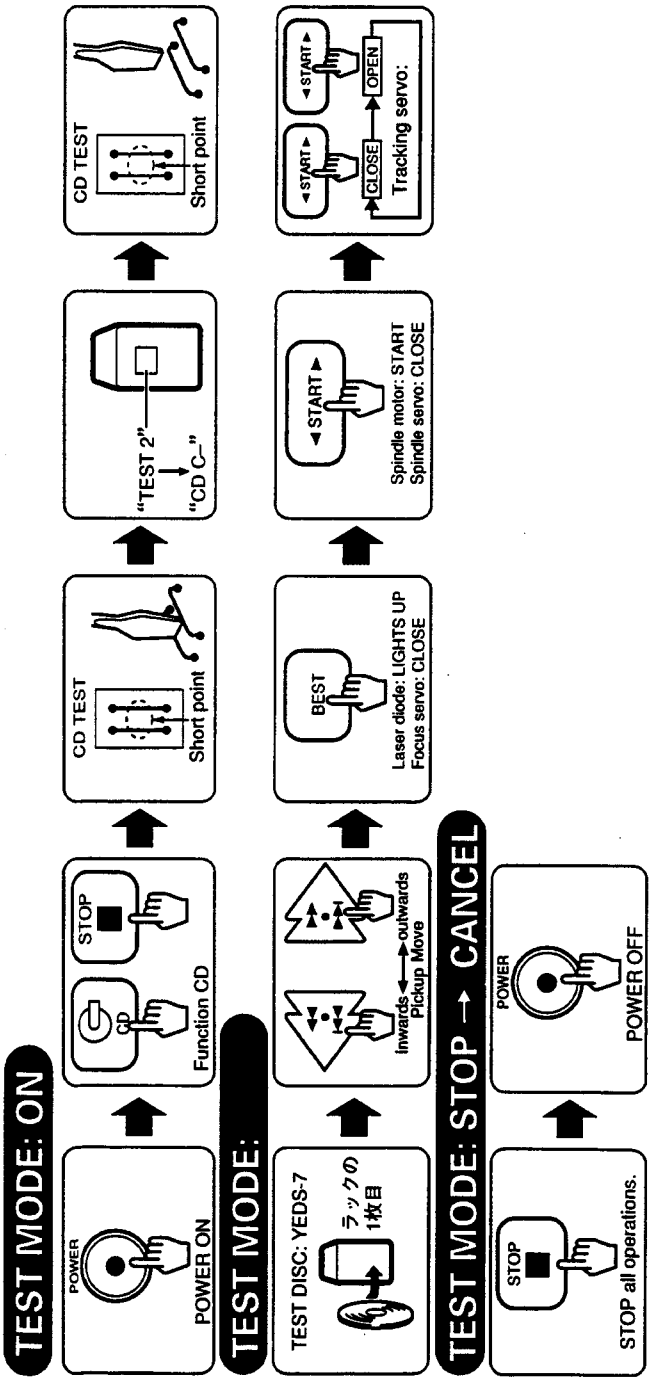
| | | | |
|---|---|---|---|
| CD TEST DISC (YEDS-7) | ⊖ Precise screwdriver | ⊖ screwdriver (small) | ⊕ screwdriver (medium) |
| ⊕ screwdriver (large) |  Low-frequency oscillator |   Dual-trace oscilloscope (10 : 1 probe) |   Low pass filter (39 kΩ + 0.001μF) |

#### 1.2 Necessary Adjustment Points (調整に必要な項目)

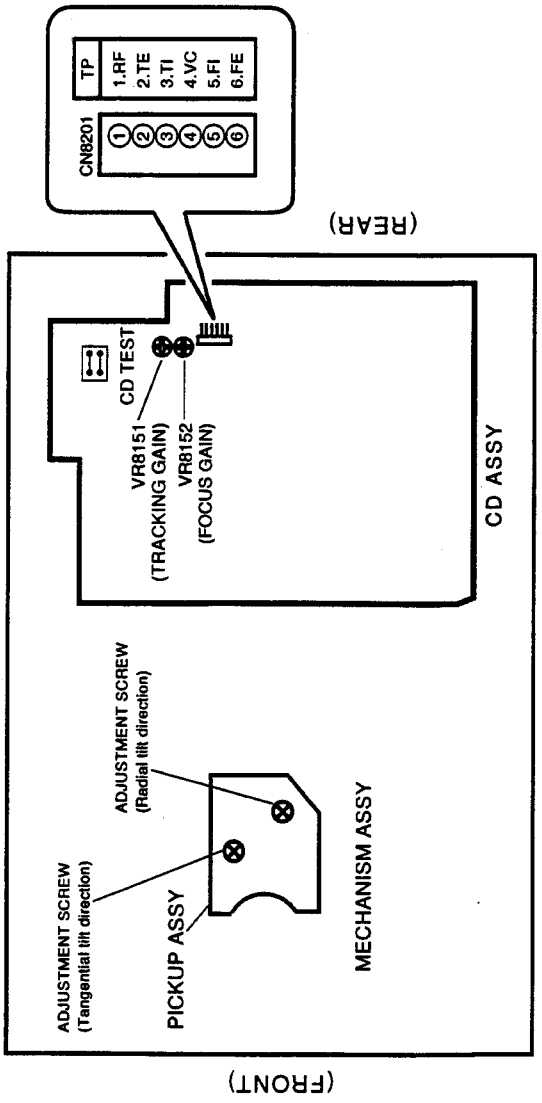
| When (このような時) | Adjustment points |
|---|---|
| Exchange PICKUP (ピックアップを交換した時) | 1.2.3.4.5.6. → Page 75~77 |
| Exchange CD ASSY (CD ASSYを交換した時) | 1.2.3.4.5.6. → Page 75~77 |
| Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時) | 1.2.3.4.5.6. → Page 75~77 |
| Exchange SPINDLE MOTOR (スピンドルモーターを交換した時) |  ADJ → Page 19 |

## 2. ADJUSTMENT (調整)

### 2.1 How to Start/Cancel Test Mode (テストモードの設定/解除)

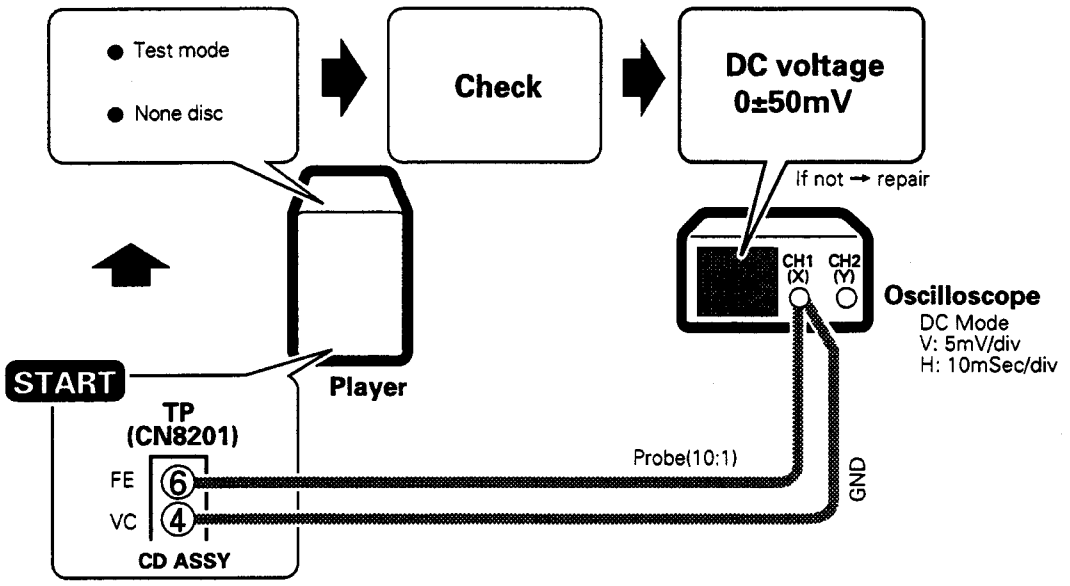



### 2.2Adjustment Locations (テストポイントと調整用VRの位置)

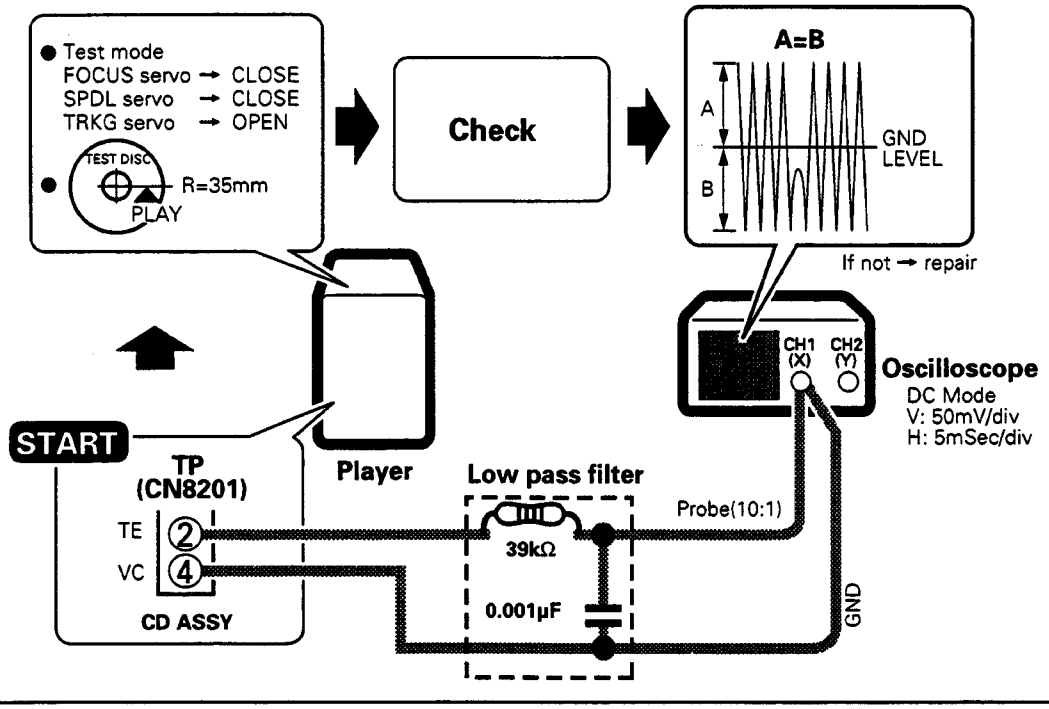


## 2.3 Check and Adjustment (確認、調整)

### 1. Focus Offset Check
(フォーカスオフセット確認)

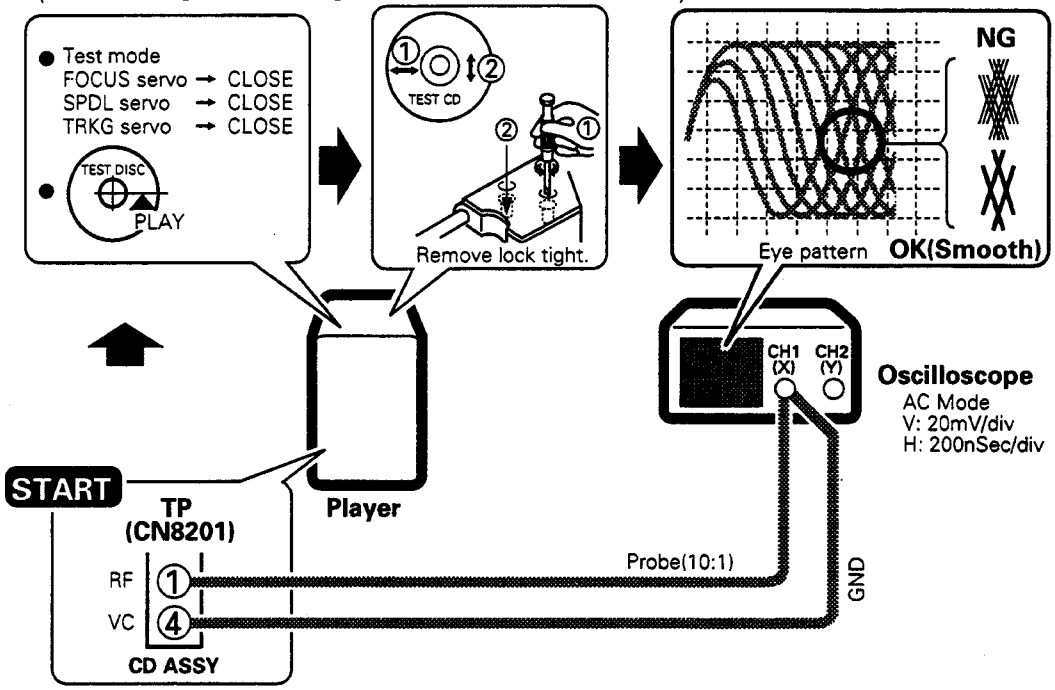



### 2. Tracking Error Balance Check
(トラッキングエラーバランス確認)



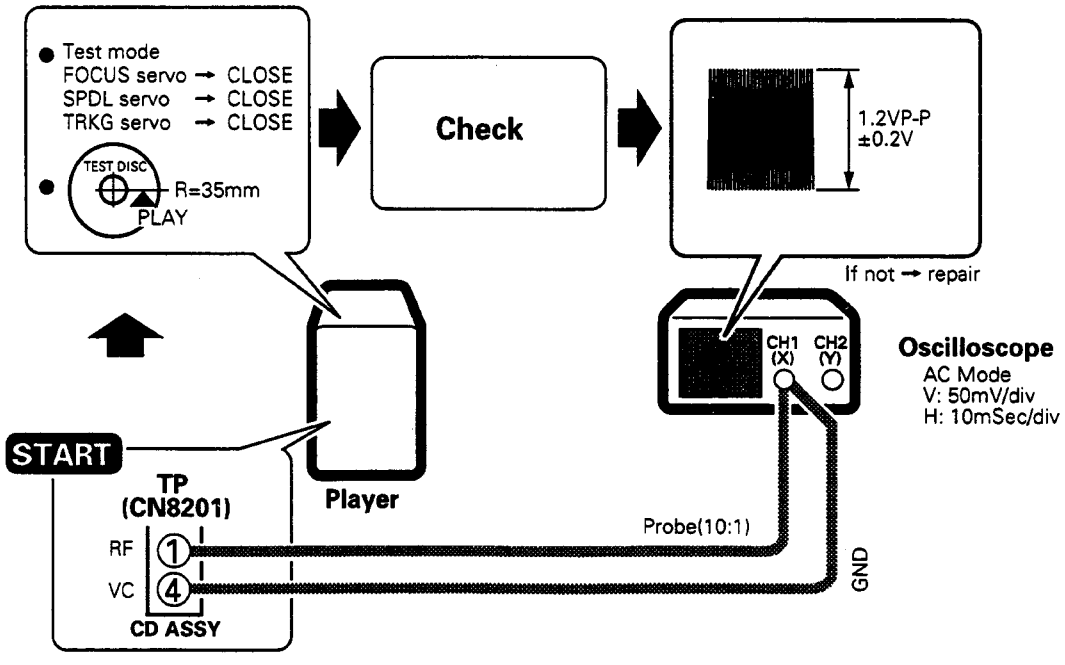
## 3. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

(ピックアップ①ラジアル方向②タンジェンシャル方向の傾き調整)

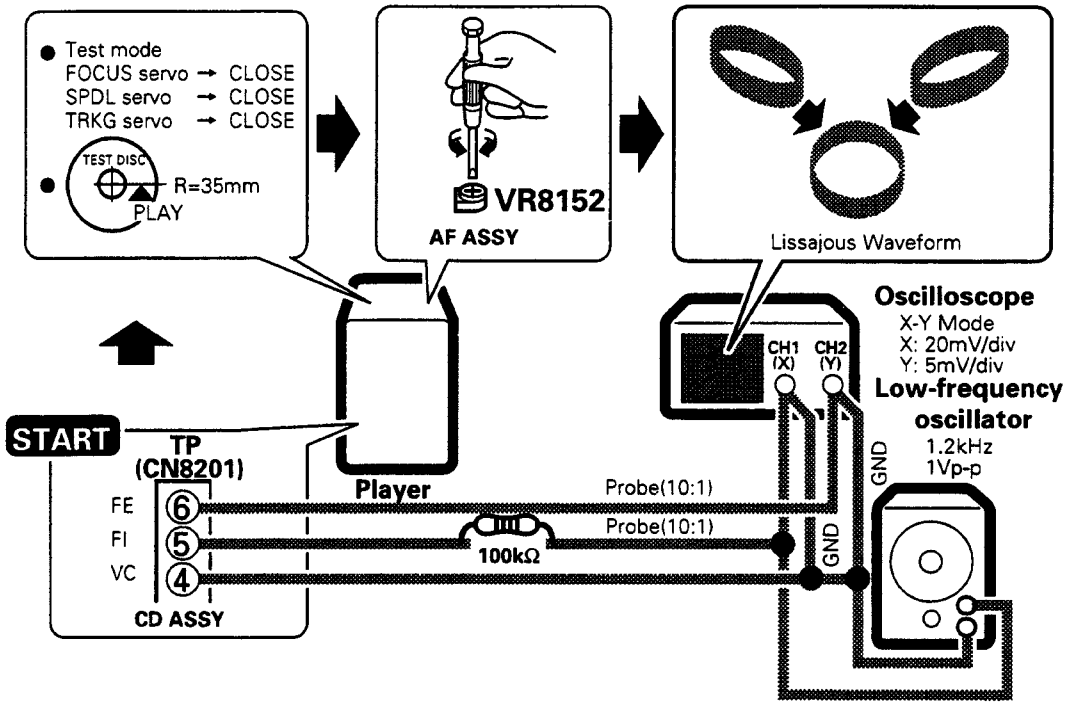



## 4. RF LEVEL CHECK

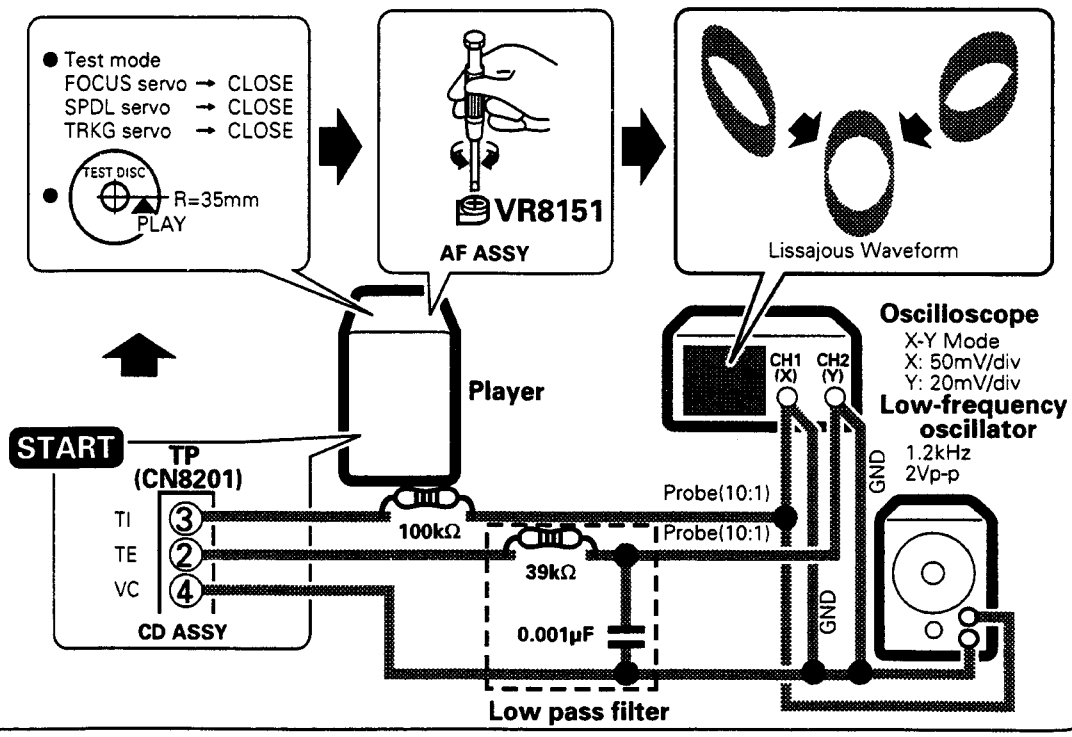
(RFレベル確認)



## 5. Focus Servo Loop Gain Adjustment
(フォーカスサーボループゲイン調整)




## 6. Tracking Servo Loop Gain Adjustment
(トラッキングサーボループゲイン調整)



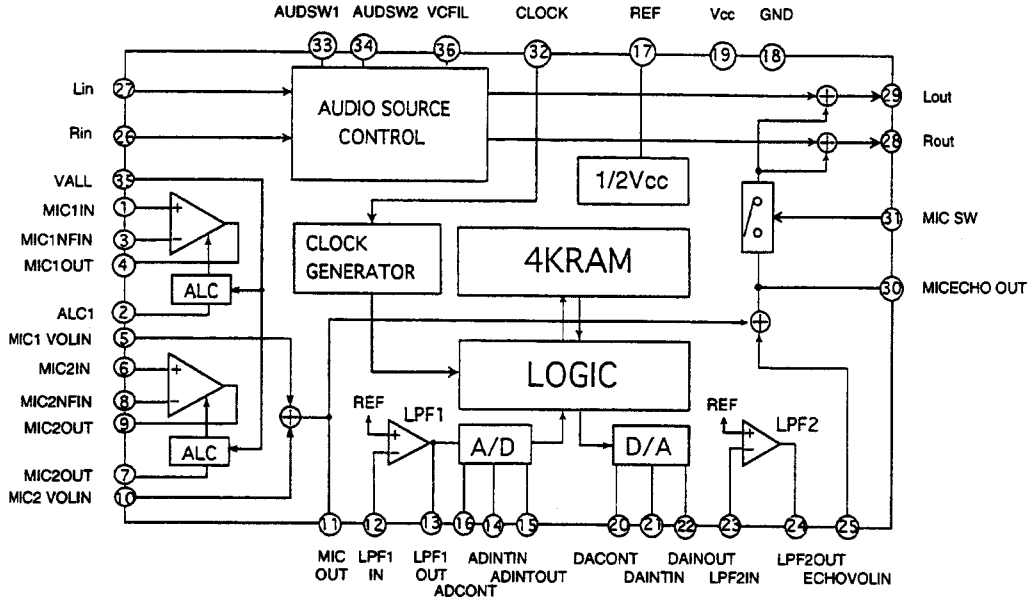
# 6. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

## ■ M65845FP (IC251 : AF ASSY)

### ● Digital Echo (built-in Mic Mixing Circuit)

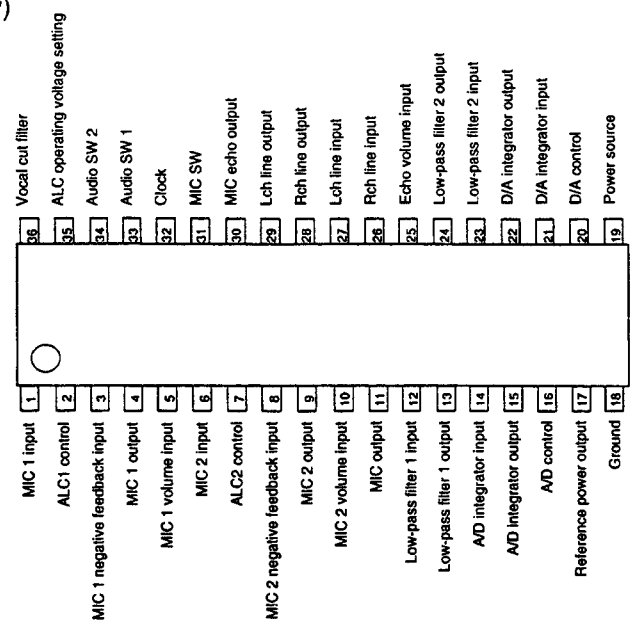
● Block Diagram




● Pin Function

| No. | Pin Name | Pin Function | Description |
|---|---|---|---|
| 1 | MIC1IN | MIC 1 input | Connects MIC 1. |
| 2 | ALC1 | ALC1 control | Connects condenser for setting ALC attack/recovery time. |
| 3 | MIC1NFIN | MIC 1 negative feedback input | Sets MIC 1 amp gain according to feedback circuit. |
| 4 | MIC1OUT | MIC 1 output | |
| 5 | MIC1VOLIN | MIC 1 volume input | Input after attenuation at outside MIC volume |
| 6 | MIC2IN | MIC 2 input | Connects MIC 2. |
| 7 | ALC2 | ALC2 control | Connects condenser for setting ALC attack/recovery time. |
| 8 | MIC2NFIN | MIC 2 negative feedback input | Sets MIC 2 amp gain according to feedback circuit. |
| 9 | MIC2OUT | MIC 2 output | |
| 10 | MIC2VOLIN | MIC 2 volume input | Input after attenuation at outside MIC volume |
| 11 | MICOUT | MIC output | MIC 1 and MIC 2 mixing output |
| 12 | LPF1IN | Low-pass filter 1 input | Pre-filter before A/D conversion for digital echo |
| 13 | LPF1OUT | Low-pass filter 1 output | |
| 14 | ADINTIN | A/D integrator input | Configures integrator for A/D conversion according to outside condenser. |
| 15 | ADINTOUT | A/D integrator output | |

● Pin Assignment (Top View)



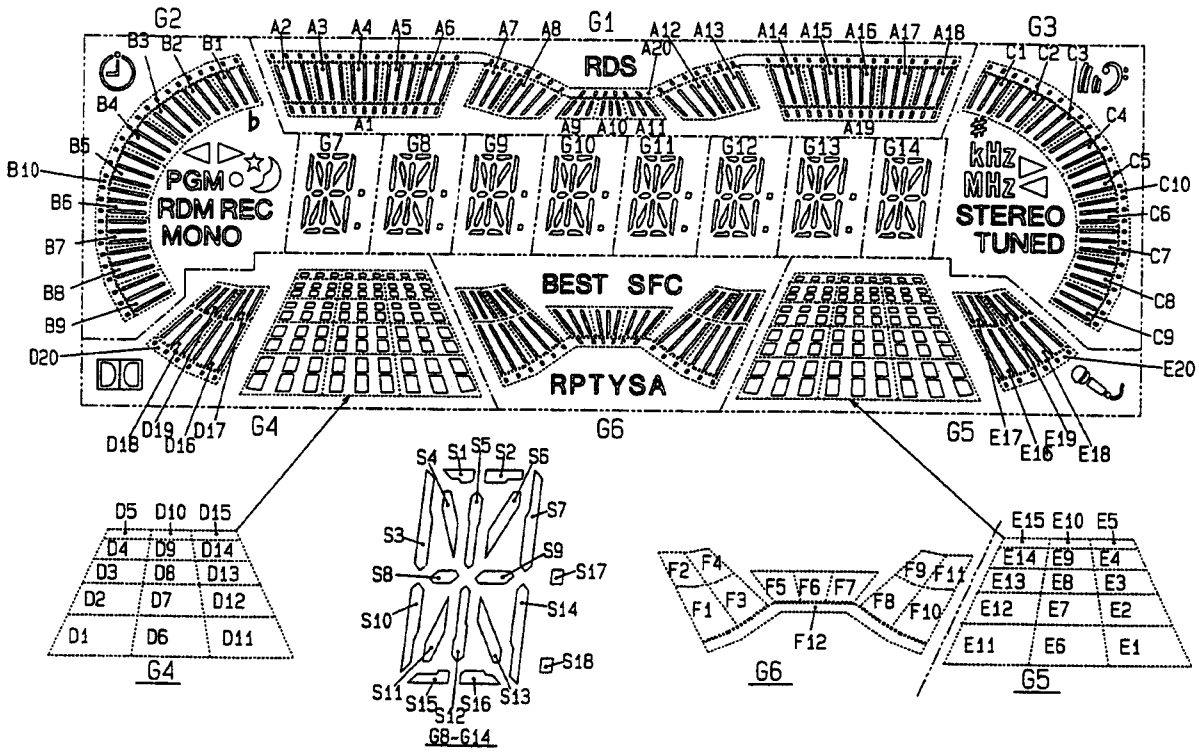

| No. | Pin Name | Pin Function | Description |
|---|---|---|---|
| 16 | ADCONT | A/D control | Sets adaptive time constant of ADM method A/D conversion. |
| 17 | REF | Reference power output | Connects 1/2 Vcc output and filter condenser. |
| 18 | GND | Ground | |
| 19 | Vcc | Power source | |
| 20 | DACONT | D/A control | Sets adaptive time constant of ADM method D/A conversion. |
| 21 | DAINTIN | D/A integrator input | Configures integrator for D/A conversion according to outside condenser. |
| 22 | DAINTOUT | D/A integrator output | |
| 23 | LPF2IN | Low-pass filter 2 input | Post-filter before D/A conversion for digital echo |
| 24 | LPF2OUT | Low-pass filter 2 output | |
| 25 | ECHOVOLIN | Echo volume input | Input after attenuation at outside MIC volume |
| 26 | RLINEIN | Rch line input | |
| 27 | LLINEIN | Lch line input | |
| 28 | RLINEOUT | Rch line output | MIC system and line system mixing output |
| 29 | LLINEOUT | Lch line output | |
| 30 | MICECHOOUT | MIC echo output | MIC source audio and echo mixing output |
| 31 | MICSW | MIC SW | L: MIC OFF H: MIC ON |
| 32 | CLOCK | Clock | CR oscillator: Built-in buffer for oscillation |
| 33 | AUDSW1 | Audio SW 1 | Audio selector switch:<br>Switches audio signals through operation of audio switches 1 and 2 to L and H settings. |
| 34 | AUDSW2 | Audio SW 2 | |
| 35 | VALC | ALC operating voltage setting | Sets ALC operating voltage according to applied voltage value. |
| 36 | VCFIL | Vocal cut filter | Changes frequency components lower than vocal band to Through signals. |

# 7. FL INFORMATION

## ■ AAV7021 (V1901: DISPLAY ASSY)

### ● FL Tube

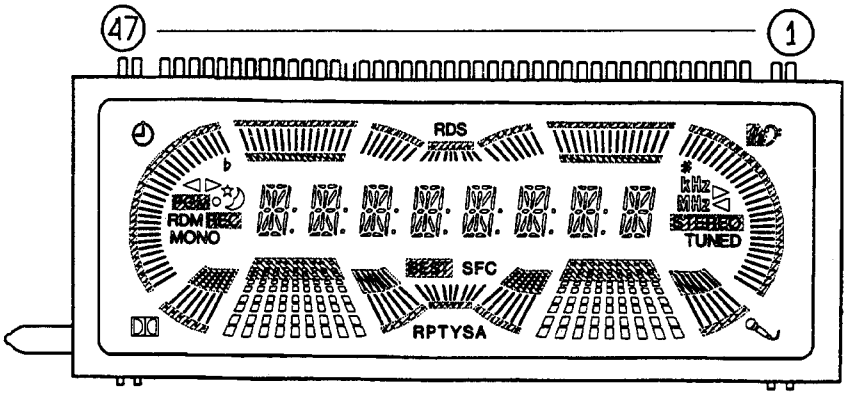
● Grid and Segment assignment




● Anode Connection

| | G1 | G2 | G3 | G4 | G5 | G6 | G7~G14 |
|---|---|---|---|---|---|---|---|
| S1 | A1 | B1 | C1 | D1 | E1 | F1 | S1 |
| S2 | A2 | B2 | C2 | D2 | E2 | F2 | S2 |
| S3 | A3 | B3 | C3 | D3 | E3 | F3 | S3 |
| S4 | A4 | B4 | C4 | D4 | E4 | F4 | S4 |
| S5 | A5 | B5 | C5 | D5 | E5 | F5 | S5 |
| S6 | A6 | B6 | C6 | D6 | E6 | F6 | S6 |
| S7 | A7 | B7 | C7 | D7 | E7 | F7 | S7 |
| S8 | A8 | B8 | C8 | D8 | E8 | F8 | S8 |
| S9 | A9 | B9 | C9 | D9 | E9 | F9 | S9 |
| S10 | A10 | B10 | C10 | D10 | E10 | F10 | S10 |
| S11 | A11 | ◁ | kHz | D11 | E11 | F11 | S11 |
| S12 | A12 | ▷ | MHz | D12 | E12 | F12 | S12 |
| S13 | A13 | ○ | ▷ | D13 | E13 | BEST | S13 |
| S14 | A14 | ☆) | ◁ | D14 | E14 | SFC | S14 |
| S15 | A15 | PGM | STEREO | D15 | E15 | R | S15 |
| S16 | A16 | RDM | TUNED | D16 | E16 | P | S16 |
| S17 | A17 | REC | ♯ | D17 | E17 | T | S17 |
| S18 | A18 | MONO | 𝄢 | D18 | E18 | Y | S18 |
| S19 | A19 | ♭ | 𝅗𝅥 | D19 | E19 | S | |
| S20 | A20 | 🕘 | 𝅘𝅥 | D20 | E20 | A | |
| S21 | RDS | | | DIO | | | |

● Pin Assignment



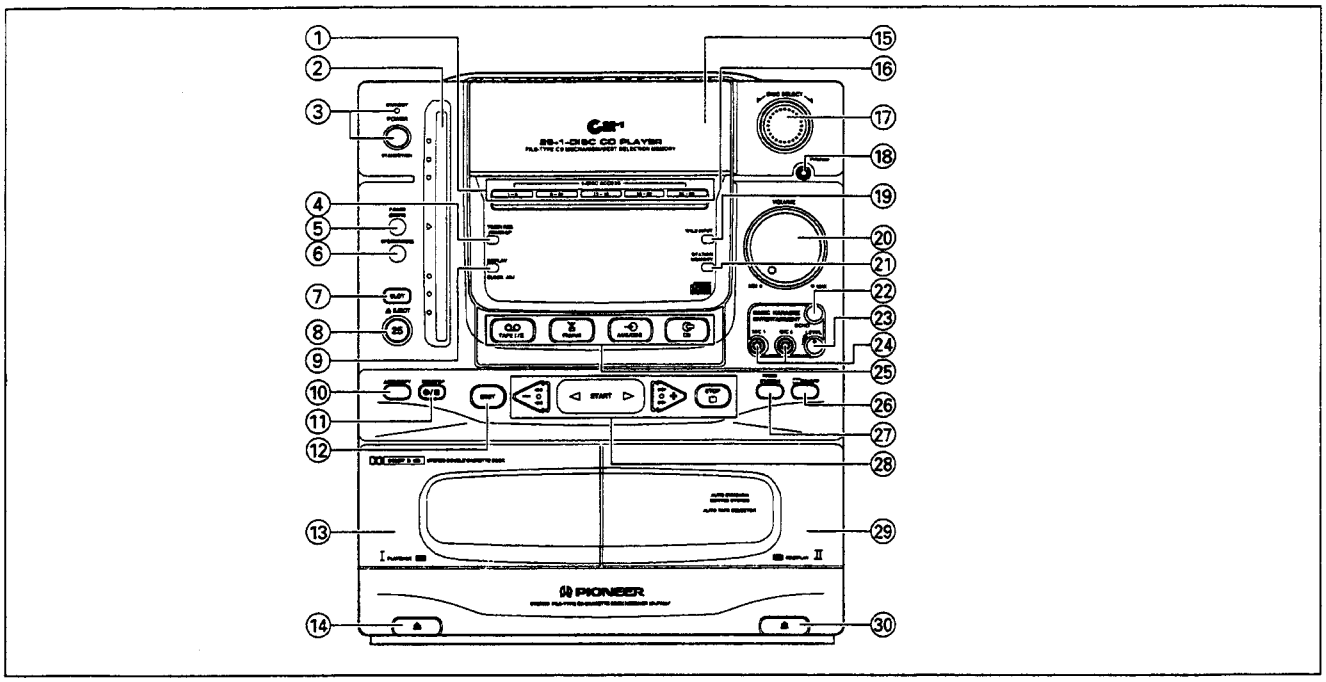

● Pin Connection

| Pin No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assignment | F1 | F1 | NP | NL | NL | G14 | G13 | G12 | G11 | G10 | G9 | G8 | G7 | G6 | G5 | G4 | G3 | G2 | G1 | NL | S21 | S20 | S19 | S18 |

| Pin No. | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Assignment | S17 | S16 | S15 | S14 | S13 | S12 | S11 | S10 | S9 | S8 | S7 | S6 | S5 | S4 | S3 | S2 | S1 | NL | NL | NL | NP | F2 | F2 |

F1, F2:Filament  G1~G14:Grid  S1~S21:Anode  NP:No Pin  NL:No Lead

# 8. PANEL FACILITIES




**① 5-DISC ACCESS button**

**② Plus 1 disc slot**

**③ POWER STANDBY/ON switch and STANDBY indicator**
This is the switch for electric power.
**ON** : When set to the ON position, power is supplied and the unit becomes operational.
**STANDBY** : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness. (The STANDBY indicator lights.)

**④ TIMER REC/WAKE-UP button**

**⑤ P.BASS (DEMO) button**

**⑥ SFC/KARAOKE button**
Each time this button is pressed, the mode changes in the following sequence:

HALL → LIVE → DISCO → MOVIE → KARAOKE → off

***NOTE:***
*If KARAOKE is selected, the vocal part in songs is muted and only the instrumental accompaniment (backup) is played.*

**⑦ SLOT EJECT button**

**⑧ 25 EJECT button**

**⑨ DISPLAY CLOCK ADJ button**
**(U.S., Canadian and Australian models)**
**DISPLAY/RDS CLOCK ADJ button**
**(European and U.K. models)**

**⑩ ASES/COPY button**

**⑪ REC/STOP button (●/■)**

**⑫ BEST button**

**⑬ TAPE I cassette door**

**⑭ TAPE I Eject button (⏏)**

**⑮ Hood**

**⑯ Door panel**

**⑰ DISC SELECT knob**

**⑱ Headphones jack (PHONES)**

**⑲ TITLE INPUT button**

**⑳ VOLUME control**

**㉑ STATION MEMORY button**

**㉒ ECHO level control (Australian model only)**

**㉓ Microphone level (LEVEL) (Australian model only)**
**Microphone level (MIC LEVEL) (U.S., Canadian and European models)**

**㉔ Microphone jack 1, 2 (MIC 1, 2) (Australian model only)**
**Microphone jack (MIC) (U.S., U.K., Canadian and European models)**

**㉕ Function buttons**

**㉖ Dolby* NR ON/OFF button**
Each time this button is pressed, the Dolby NR system turns on and off.

**㉗ FREQ/STATION button**

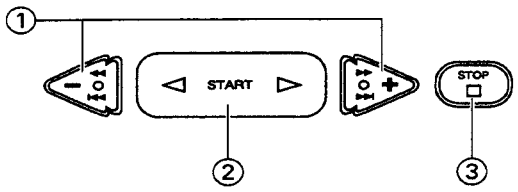
**㉘ Common operation button section (Refer to page 83.)**

**㉙ TAPE II cassette door**

**㉚ TAPE II Eject button (⏏)**

*
- *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.*
- *"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

## Common operation button section




### ① ⏮, ⏭ buttons

### ② START button (◄ ►)

### ③ STOP button (■)

**• Roles of the common operation buttons (The roles of the buttons vary depending on the input functions as shown below.)**

**During CD input**

| | |
|---|---|
| START | : Play/pause button |
| STOP | : Stop button |
| ⏭ | : Fast forward/track search button |
| ⏮ | : Fast reverse/track search button |

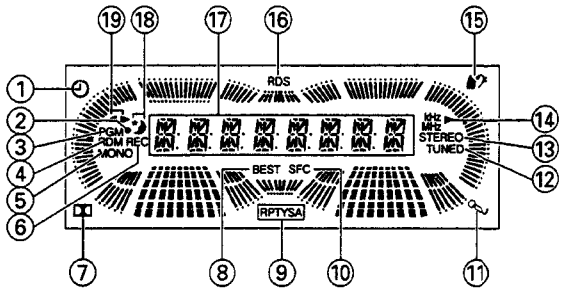
**During cassette deck input**

| | |
|---|---|
| START | : Play button/Tape transport direction |
| STOP | : Stop button |
| ⏭ | : Fast forward/Review button |
| ⏮ | : Rewind/Review button |

**During tuner operation**

| | |
|---|---|
| ⏭ | : Frequency Up button |
| ⏮ | : Frequency Down button |

## Display




① Lights when setting the timer.

② Lights when setting the Beat Cut function.

③ Lights when you press the PGM button.

④ Lights when you press the RANDOM button.

⑤ Lights when you press the MONO button.

⑥ Lights during recording and timer recording operation.

⑦ Lights when Dolby NR is ON.

⑧ Flashes during Best Selection setting, and lights during play.

⑨ RPT : Lights during repeat play.
- S : Lights during SINGLE mode operation.
- A : Lights during ALL mode operation.
- RT : Lights during RT mode operation (European models only).
- PS : Lights during PS mode operation (European models only).
- PTY : Lights during PTY mode operation (European models only).

⑩ Lights during SFC mode operation.

⑪ Lights during KARAOKE mode operation.

⑫ Lights during radio broadcast reception.

⑬ Lights during FM stereo reception.

⑭ Lights during CD play. (Flashes in pause mode.)

⑮ Lights when you press the P.BASS button.

⑯ Lights during RDS mode operation. (European and U.K. models only)

⑰ Indicates frequency and major operation status.

⑱ Lights during sleep timer operation.

⑲ Lights to show TAPE II tape direction.

# XR-P760F

# 9. SPECIFICATIONS

## ■ STEREO FILE-TYPE CD CASSETTE DECK RECEIVER: XR-P760F

**Amplifier Section**

**<U.S. and Canadian models>**

**Continuous average power output is 100 watts* per channel, min., at 8 ohms from 60 Hz to 15,000 Hz with no more than 1.0 %** total harmonic distortion.**

| | |
|---|---|
| Continuous Power Output (FTC) | 100 W + 100 W (U.S. and Canadian models) |
| (RMS) | 100 W + 100 W (1 kHz, T.H.D. 10 %, 8 Ω) |
| (PMPO) | 1500 W (Australian model) |

● *Above specifications are for when power supply is 230 V.*

**FM Tuner Section**

| | |
|---|---|
| Reception frequencies | 87.5 MHz to 108 MHz |
| Antenna input | 75 Ω unbalanced |

**AM Tuner Section**

| | |
|---|---|
| Reception frequencies | 531 kHz to 1,602 kHz (9k)<br>530 kHz to 1,700 kHz (10k) |
| Antenna | Loop antenna (included) |

**Double Cassette Deck Section**

| | |
|---|---|
| System type | 4-track, 2-channel stereo |
| Heads | Recording/playback head x 1<br>Playback head x 1<br>Erasing head x 1 |
| Motor | DC servo motor x 1 |
| Frequency response | |
| Type II (High/$CrO_2$) tape | *35 Hz to 15,000 Hz ±6 dB (recorded at –20 dB) |
| Type I (Normal) tape | *35 Hz to 14,000 Hz ±6 dB (recorded at –20 dB) |
| SN ratio | *56 dB (peak recording level, audible compensation) |
| Dolby B type NR on | 10 dB compensation at 5 kHz |

* Values measured in accordance with EIAJ standards.

## ■ FILE TYPE CD PLAYER

| | |
|---|---|
| Type | Compact disc audio system |
| Usable discs | Compact audio discs |
| Channels | 2 channels (stereo) |
| Program steps | 32 steps maximum |

## ■ ELECTRICAL REQUIREMENTS, ETC.

| | |
|---|---|
| Power Requirements | |
| U.S., Canadian models | AC 120 V, 60 Hz |
| Australian model | AC 240 V, 50 Hz |
| Power Consumption | |
| U.S. model | 255 W |
| Canadian model | 390 VA |
| Australian model | 490 W |
| External dimensions | 260 (W) x 315.7 (H) x 366.7 (D) mm<br>10-1/4 (W) x 12-7/16 (H) x 14-7/16 (D) in. |
| Weight | 11 kg (24 lb 5 oz) |

## ■ ACCESSORIES

| | |
|---|---|
| Operating Instructions | 1 |
| FM T-type antenna | 1 |
| AM loop antenna | 1 |
| Remote control unit | 1 |
| AAA/R03 dry cell batteries | 2 |
| Speaker cords (supplied with speaker system) | 2 |
| CD case stand | 1 |

***NOTE:***

*Specifications and design are subject to possible modifications without notice, due to improvements.*

* Measured pursuant to the Federal Trade Commissions's. Trade Regulation rule on Power Output Claims for Amplifier.

** Measured by audio spectrum analyzer.